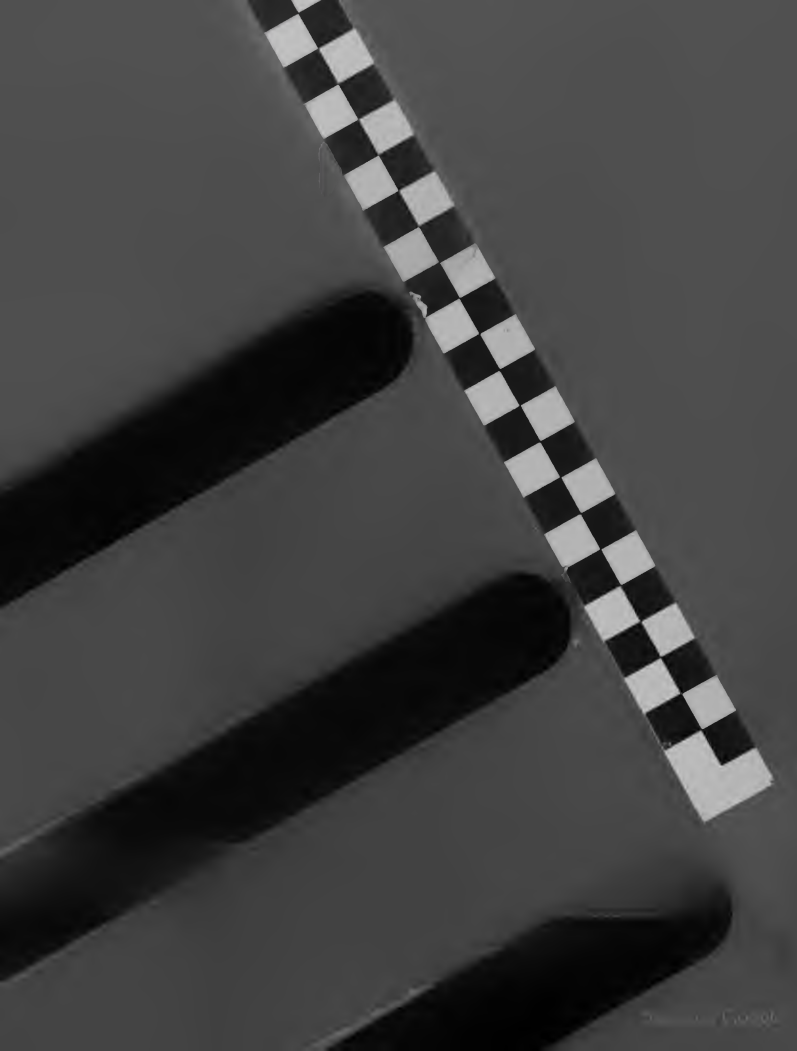
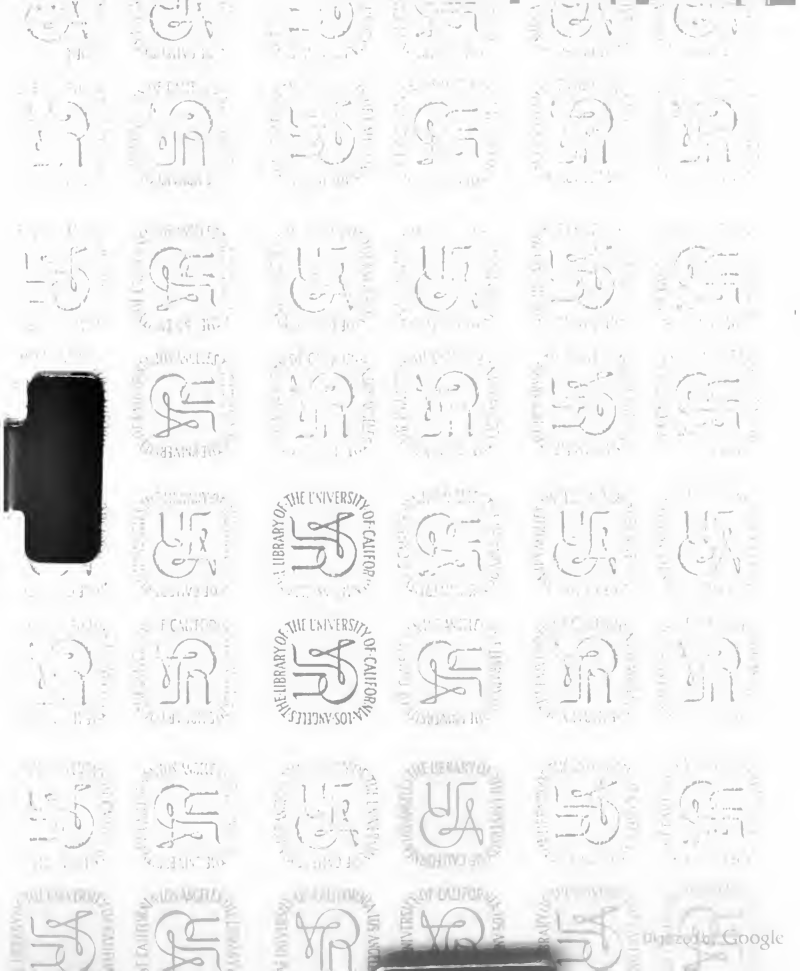


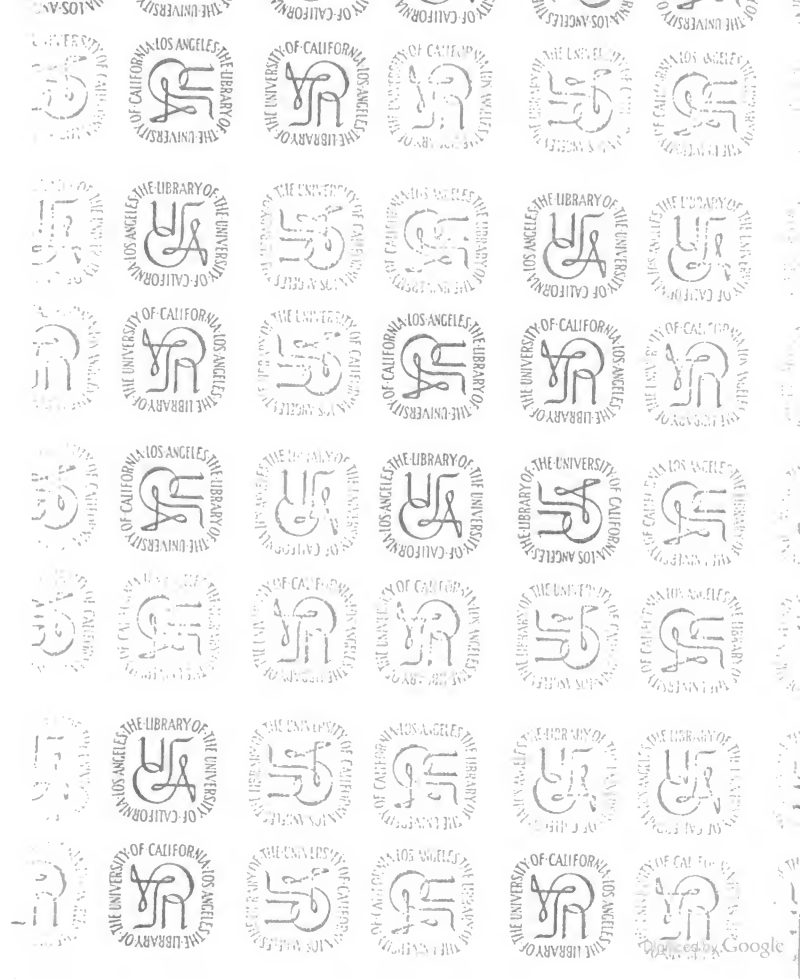
**PROCEEDINGS
OF THE SOCIETY
OF ANTIQUARIES
OF SCOTLAND**

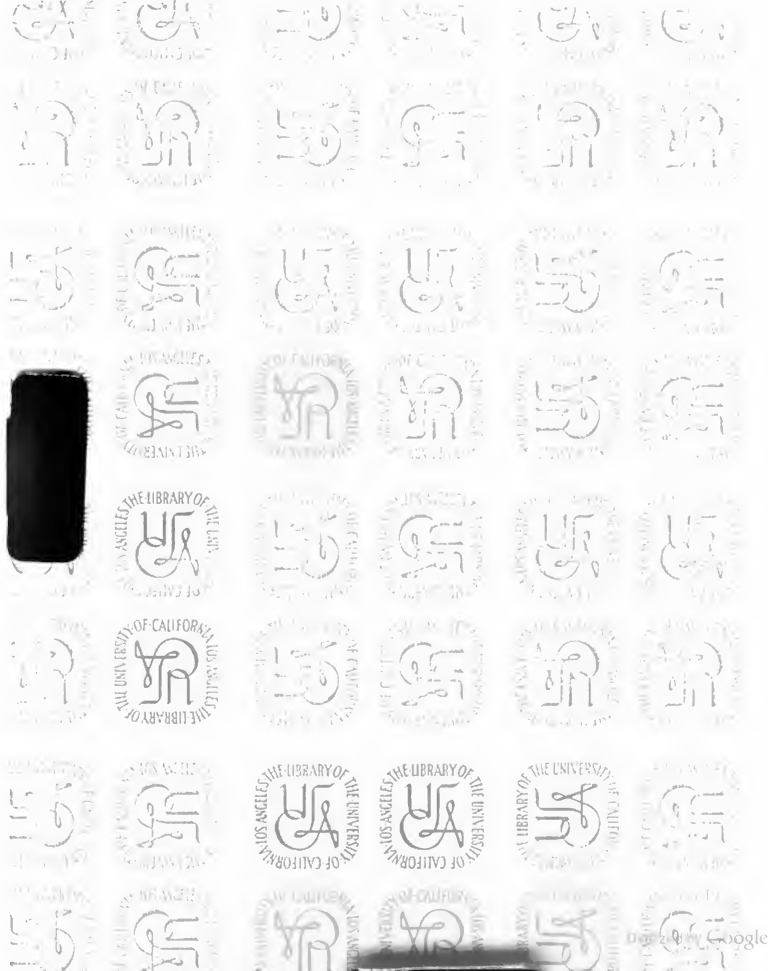


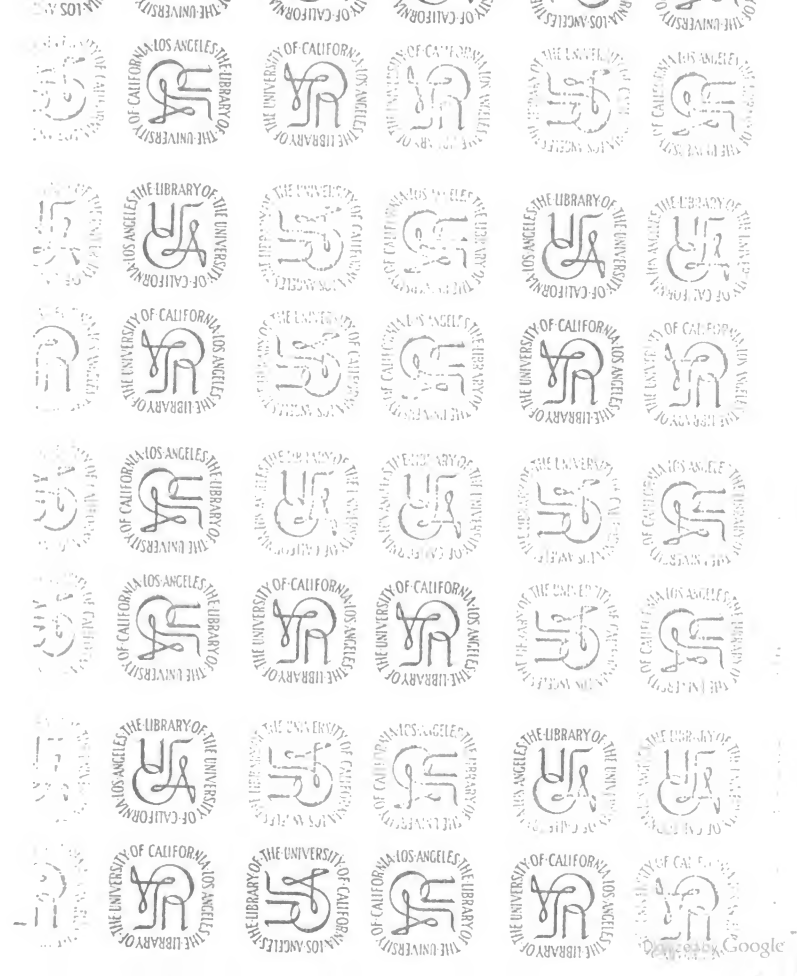






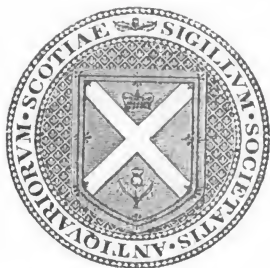






PROCEEDINGS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.

SESSION
MDCCCLXXIX.-LXXX.



VOL. XIV.

EDINBURGH:
PRINTED FOR THE SOCIETY BY NEILL AND COMPANY,
MDCCCLXXX

PROCEEDINGS

OF THE

Society of Antiquaries of Scotland

ONE HUNDREDTH SESSION

1879-80



VOL. II.—NEW SERIES

Edinburgh:

PRINTED FOR THE SOCIETY BY NEILL AND COMPANY

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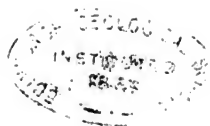
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*(Instituted 1874, in terms of a bequest for its endowment by the late
ALEXANDER HENRY RHIND, of Sibster, Hon. Mem. S.A. Scot.)*

RHIND LECTURER IN ARCHEOLOGY—JOSEPH ANDERSON.

LAWS

OF THE

SOCIETY OF ANTIQUARIES OF SCOTLAND.

INSTITUTED NOVEMBER 1780.

The purpose of the Society shall be the promotion of ARCHEOLOGY, especially as connected with the ANTIQUITIES AND HISTORICAL LITERATURE OF SCOTLAND.

I. MEMBERS.

1. The Society shall consist of Ordinary and Honorary Fellows, and of Corresponding and Lady Associates.

2. The number of the Ordinary Fellows shall be unlimited.

3. Candidates for admission as Ordinary Fellows must sign the Form of Application prescribed by the Council, and must be recommended by one Ordinary Fellow and two Members of the Council.

4. The Secretary shall cause the names of the Candidates and of their Proposers to be inserted in the billet calling the Meeting at which they are to be balloted for. The Ballot may be taken for all the Candidates named in the billet at once ; but if three or more black balls appear, the Chairman shall cause the Candidates to be balloted for singly. No Candidate shall be admitted unless by the votes of two-thirds of the Fellows present.

5. The number of Honorary Fellows shall not exceed twenty-five ; and

shall consist of men eminent in Archaeological Science or Historical Literature, and they shall not be liable for any fees of admission or annual contributions.

6. All recommendations of Honorary Fellows must be made through the Council; and they shall be balloted for in the same way as Ordinary Fellows.

7. Corresponding Associates must be recommended and balloted for in the same way as Ordinary Fellows, and they shall not be liable for any fees of admission or annual contributions.

8. The number of Lady Associates shall not exceed twenty-five. They shall be elected by the Council, and shall not be liable for any fees of admission or annual contributions.

9. Before the name of any person can be recorded as an Ordinary Fellow, he shall pay Two Guineas of entrance fees to the funds of the Society, and One Guinea for the current year's subscription. Or he may compound for all future contributions, including entrance fees, by the payment of Twenty Guineas at the time of his admission; or of Fifteen Guineas after having paid five annual contributions; or of Ten Guineas after having paid ten annual contributions.

10. If any Ordinary Fellow who has not compounded shall fail to pay his annual contribution of One Guinea for three successive years, due application having been made for payment, the Treasurer shall report the same to the Council, by whose authority the name of the defaulter may be erased from the list of Fellows.

11. Every Fellow not being in arrears of his annual subscription shall be entitled to receive the printed Proceedings of the Society from the date of his election, together with such special issues of Chartularies, or other occasional volumes, as may be provided for gratuitous distribution from time to time under authority of the Council. Associates shall have the privilege of purchasing the Society's publications at the rates fixed by the Council for supplying back numbers to the Fellows.

12. None but Ordinary Fellows shall hold any office or vote in the business of the Society.

II. OFFICE-BEARERS AND COUNCIL

1. The Office-Bearers of the Society shall consist of a President, who continues in office for three years ; three Vice-Presidents, two Secretaries for general purposes, and two Secretaries for Foreign Correspondence, a Treasurer, two Curators of the Museum, a Curator of Coins, and a Librarian, who shall be elected for one year ; all of whom may be re-elected at the Annual General Meeting, except the first Vice-President, who shall go out by rotation, and shall not be again eligible till he has been one year out of office.

2. The Council shall consist of the Office-Bearers and seven Ordinary Fellows, besides two annually nominated from the Board of Manufactures. Of these seven, two shall retire annually by rotation, and shall not be again eligible till they have been one year out of office. Any two Office-Bearers and three of the Ordinary Council shall be a quorum.

3. The Council shall have the direction of the affairs and the custody of the effects of the Society ; and shall report to the Annual General Meeting the state of the Society's funds, and other matters which may have come before them during the preceding year.

4. The Council may appoint committees or individuals to take charge of particular departments of the Society's business.

5. The Office-Bearers shall be elected annually at the General Meeting.

6. The Secretaries for general purposes shall record all the proceedings of meetings, whether of the Society or Council ; and conduct such correspondence as may be authorised by the Society or Council, except the Foreign Correspondence, which is to be carried on, under the same authority, by the secretaries appointed for that particular purpose.

7. The Treasurer shall receive and disburse all monies due to or by the Society, and shall lay a state of the funds before the Council previous to the Annual General Meeting.

8. The duty of the Curators of the Museum shall be to exercise a general supervision over it and the Society's Collections.

9. The Council shall meet during the session as often as is requisite

for the due despatch of business ; and the Secretaries shall have power to call Meetings of the Council as often as they see cause.

III. MEETINGS OF THE SOCIETY.

1. One General Meeting shall take place every year on St Andrew's day, the 30th of November, or on the following day if the 30th be a Sunday.

2. The Council shall have power to call Extraordinary General Meetings when they see cause.

3. The Ordinary Meetings of the Society shall be held on the second Monday of each month, at Eight o'clock P.M. from December to April inclusive, and in May and June at Three P.M. The Council may give notice of a proposal to change the hour and day of meeting if they see cause.

IV. BYE-LAWS.

1. All Bye-Laws formerly made are hereby repealed.

2. Every proposal for altering the Laws as already established must be made through the Council ; and if agreed to by the Council, the Secretary shall cause intimation thereof to be made to all the Fellows at least three months before the General Meeting at which it is to be determined on.

LIST OF THE FELLOWS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.

NOVEMBER 30, 1880.

PATRON.
HER MAJESTY QUEEN VICTORIA.

1853. *ABBOTT, FRANCIS, 25 Moray Place.
1879. ABERCROMBY, Hon. JOHN, 4 Shandwick Place.
1853. *ABERDEIN, FRANCIS, Keithock House, Brechin.
1858. *ADAM, ROBERT, City Accountant, Council Chambers.
1877. AINSLIE, DAVID, of Costerton, Blackshiels.
1878. AITKEN, THOMAS, M.D., District Asylum, Inverness.
1864. ALEXANDER, Major-General Sir JAMES EDWARD, Knt., of Westerton,
Bridge of Allan.
1846. *ALEXANDER, Rev. WILLIAM LINDSAY, D.D., Pinkie Burn, Musselburgh.
1875. ALLAN, Major-General ALEXANDER STEWART, Skene Lodge, Richmond,
Surrey.
1879. ALLEN, J. ROMILLY, C.E., 23 E. Maitland Street.
1865. ANDERSON, ARTHUR, M.D., C.B., Inspector-General of Hospitals, Pit-
lochrie.
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 University of Glasgow.
1861. *NICOL, ERSKINE, R.S.A., 24 Dawson Place, Bayswater, London.
 1875. NICOL, GEORGE H., Tay Beach Cottage, West Ferry, Dundee.
 1875. NICOLSON, ALEXANDER, LL.D., Sheriff-Substitute, Kirkeudbrightshire.
 1877. NIVEN, ALEXANDER T., C.A., 6 Abbotsford Crescent.
 1851. *NIVEN, JOHN, M.D., 110 Lauriston Place.
 1867. NORTHEK, Right Hon. The Earl of, 76 St. George's Square, London.
 1867. NORTHUMBERLAND, His Grace The Duke of.
1877. OGILVIE, WILLIAM M., Lochee, Dundee.
 1877. OMOND, GEORGE W. T., M.A., Advocate, 32 Royal Circus.
 1832. *OMOND, Rev. JOHN REID, Monzie, Crieff.
1880. PANTON, GEORGE A., 12 Osborne Terrace.
 1880. PARK, GEORGE HARRISON, 6 Shandwick Place.
 1862. PATERSON, GEORGE A., M.D., 15 Merchiston Park.
 1859. *PATON, JOHN, 16 Meadow Place.
 1859. *PATON, SIR JOSEPH NOEL, R.S.A., Knt., LL.D., 33 George Square.
 1869. PATON, WALLER HUGH, R.S.A., 14 George Square.
 1870. *PATRICK, R. W. COCHRAN, LL.D., M.P., Woodside, Beith, Ayrshire.
 1871. PAUL, GEORGE M., W.S., 16 St Andrew Square.
 1879. PAUL, J. BALFOUR, Advocate, 32 Great King Street.
 1874. PAXTON, WILLIAM, 11 Lauder Road.
 1880. PEACE, MASKELL WILLIAM, Ashfield, Wigan.
 1862. PEDDIE, JOHN DICK, M.P., 33 Buckingham Terrace.
 1879. PEDDIE, J. M. DICK, Architect, 3 South Charlotte Street.
 1855. *PENDER, JOHN, M.P., 18 Arlington Street, London.
 1874. PETER, Rev. JAMES, Deer, Aberdeenshire.
 1878. PETERS, Rev. W., M.A., The Manse, Kinross.
 1872. POLLOCK, HUGH, Donnybrook House, Cork.

1872. PRENTICE, EDWARD ALEXANDER, Montreal.
1878. PREVOST, Col. T. W., 25 Moray Place.
1860. *PRIMROSE, Hon. BOUVERIE F., C.B., 22 Moray Place.
1878. PRINGLE, JOHN, M.D., 27 Rutland Square.
1878. PRYDE, DAVID, LL.D., 10 Fettes Row.
1865. RAINY, ROBERT, D.D., Principal, and Professor of Theology and Church History, New College, Edinburgh.
1873. RAMPINI, CHARLES, Sheriff-Substitute, Lerwick.
1864. *RAMSAY, Major JOHN, of Straloch and Barra, Aberdeenshire.
1880. RAMSAY, JOHN, of Kildalton, M.P.
1879. RANKINE, JOHN, Advocate, 44 Northumberland Street.
1874. RATTRAY, JAMES CLERK, M.D., 15 Chalmers Crescent.
1860. *REID, JAMES, Secretary, Commercial Bank of Scotland.
1866. REID, WILLIAM, W.S., 21 Charlotte Square.
1849. *RHIND, DAVID, Architect, Lendenlee, Trinity Road.
1880. RICHARDSON, Hon. W. A., LL.D., Judge of Court of Claims, Washington, U.S.
1875. RINTOUL, Major ROBERT, Kinross House, Carlyle Square, London.
1877. RINTOUL, Major ROBERT, of Labill, Largo.
1878. RIVETT-CARNAC, J. H., C.I.E., Ghazipur.
1861. ROBERTSON, ANDREW, M.D., of Hopewell, Tarland, Aberdeenshire.
1879. ROBERTSON, George, Comely Bank, Dunfermline.
1879. ROBERTSON, W. W., Architect, H.M. Board of Works.
1865. ROBINSON, JOHN RYLEY, LL.D., Westgate, Dewsbury.
1880. ROBSON, WILLIAM, S.S.C., Marchholm, Gilsland Road.
1854. *ROGER, JAMES C., The Crouchers, Aldborough Hatch, Ilford, Essex.
1850. *ROGERS, Rev. CHARLES, LL.D., Grampian Lodge, Westwood Park, Forest Hill, London.
1871. ROLLO, Right Hon. Lord, Duncrub House, Dunning.
1874. ROMANES, ROBERT, Harryburn, Lauder.
1872. *ROSEBURY, Right Hon. The Earl of.
1876. ROSS, ALEXANDER, Architect, Riverfield, Inverness.
1876. ROSS, JOHN M., LL.D., 30 Great King Street.
1867. ROSS, Rev. WILLIAM, Rothesay.
1869. ROSSLYN, Right Hon. The Earl of.

1877. SANDERSON, JAMES, Deputy-Inspector of Hospitals, Madras Army,
41 Manor Place.
1876. SCOTT, CHARLES, Advocate, 9 Drummond Place.
1879. SCOTT, REV. DAVID, F.C. Manse, Saltcoats.
1848. *SETON, GEORGE, Advocate, St Bennet's, Greenhill Gardens.
1869. *SHAND, HON. LORD, New Hailes.
1879. SHAND, JOHN, M.D., 66 Northumberland Street.
1864. SHAND, ROBERT, Teacher, 45 Mill Street, Perth.
1873. SHIELDS, JOHN, 11 Melville Street, Perth.
1878. SHIELL, JOHN, Solicitor, 19 Windsor Street, Dundee.
1879. SIBBALD, JOHN, M.D., Commissioner in Lunacy, 3 St Margaret's Road.
1879. SIBBALD, JOHN EDWARD, 8 Etrick Road.
1875. SIDEY, CHARLES, 21 Chester Street.
1878. SIDEY, JAMES A., M.D., 20 Heriot Row.
1860. *SIM, GEORGE, 9 Lauriston Lane,—*Curator of Coins*.
1865. SIM, WILLIAM, of Lunan Bank, 4 St Bernard's Crescent.
1871. *SIMPSON, ALEX. R., M.D., Professor of Midwifery, University of Edinburgh, 52 Queen Street.
1870. SIMPSON, GEORGE BUCHAN, Seafield, Broughtly Ferry.
1880. SIMPSON, ROBERT R., W.S., 8 Bruntsfield Crescent.
1878. SKEETE, HORACE, Solicitor, Perth.
1833. *SKENE, WILLIAM FORBES, LL.D., D.C.L., W.S., 27 Inverleith Row.
1876. SKINNER, WILLIAM, W.S., City Clerk, 3 George Square.
1877. SKIRVING, ADAM, of Croys.
1879. SMAIL, JAMES, Banker, Galashiels.
1870. SMALL, DAVID, Solicitor, Gray House, Dundee.
1873. SMALL, JOHN, M.A., Librarian to the University, Edinburgh.
1880. SMALL, J. W., Architect, 56 George Street.
1874. SMART, JOHN, R.S.A., 13 Brunswick Street, Hillside.
1844. *SMITH, DAVID, W.S., 64 Princes Street.
1877. SMITH, JAMES T., Duloch, Inverkeithing.
1847. *SMITH, JOHN ALEXANDER, M.D., 10 Palmerston Place,—*Secretary*.
1874. SMITH, J. IRVINE, 21 Northumberland Street.
1858. *SMITH, ROBERT MACKAY, Bellevue Crescent.
1874. *SMITH, R. ANGUS, Ph.D., 27 York Place, Manchester.
1866. SMYTH, WILLIAM, of Methven, Methven Castle, Perthshire.
1855. *SNODY, ANDREW, S.S.C., 26 Gayfield Square.

1874. SOUTAR, THOMAS, Banker, Crieff.
 1864. SOUTAR, WILLIAM SHAW, Banker, Blairgowrie.
 1873. *SPOWART, THOMAS, of Broomhead, 7 Coates Crescent.
 1872. *STAIR, Right Hon. the Earl of.
 1875. STARKE, JAMES GIBSON, M.A., Advocate, Troqueer Holm, Dumfries.
 1874. *STEEL, Capt. GAVIN, 7 Grosvenor Crescent, Edinburgh.
 1872. STEEL, NEIL, Merchant, Constitution Terrace, Dundee.
 1872. *STEVENSON, ALEXANDER SHANNAN, Tynemouth.
 1875. STEVENSON, JOHN A., M.A., 37 Royal Terrace.
 1867. *STEVENSON, JOHN J., Architect, 3 Bayswater Hill, London.
 1855. *STEVENSON, THOMAS, C.E., 17 Heriot Row.
 1876. STEWART, Rev. ALEXANDER, Manse of Ballachulish.
 1879. STEWART, CHARLES POYNTZ, Oxford and Cambridge Club, Pall Mall.
 1874. STEWART, CHARLES, Sweethope, Musselburgh.
 1848. *STEWART, HOPE J., Spring Gardens, Musselburgh.
 1880. STEWART, J. A., 6 Constitution Terrace, Dundee.
 1871. *STEWART, Major J. M. SHAW, R.E.
 1878. STEWART, JOHN H. J., Slodahill, Lockerbie.
 1876. STEWART, ROBERT BUCHANAN, 11 Crown Terrace, Downhill, Glasgow.
 1880. STIRLING, Capt. PATRICK, yr. of Kippendavie.
 1867. *STRATHMORE, Right Hon. The Earl of, Glamis Castle, Forfarshire.
 1850. *STRUTHERS, Rev. JOHN, LL.D., Minister of Prestonpans.
 1878. STURROCK, JOHN, Engineer-Surveyor, 3 Rostie Place, Dundee.
 1867. *SUTHERLAND, His Grace The Duke of, K.G.
 1876. SUTHERLAND, Rev. GEORGE, Pulteneytown, Wick.
 1880. SUTHERLAND, GEORGE MILLER, Solicitor, Wick.
 1851. *SWINTON, ARCHIBALD CAMPBELL, of Kinmerghame, LL.D., Advocate.
 1863. SWITHINBANK, GEORGE E., LL.D., 15 Clifford Inn, Fleet Street.
 1873. TAYLOR, JAMES, D.D., 7 Ettrick Road.
 1860. *TAYLOR, JAMES, Starley Hall, Burntisland.
 1870. TEESDALE, Rev. FREDERICK D., Gordon Villa, Inverness.
 1870. *TENNANT, CHARLES, M.P., of the Glen, Innerleithen.
 1870. THOMAS, Captain F. W. L., R.N., Rosepark, Trinity.
 1874. THOMS, GEORGE HUNTER, Sheriff of Orkney, 52 Great King Street.

1872. THOMSON, SIR C. WYVILLE, LL.D., Knt., Regius Professor of Natural History, University of Edinburgh.
1867. THOMSON, LOCKHART, S.S.C., 114 George Street.
1875. *THOMSON, Rev. ROBERT, Drummondville, Ontario, Canada.
1878. THOMSON, WILLIAM, 23 Great King Street.
1865. TROUP, WILLIAM, Eastwell, Bridge of Allan.
1877. TUKE, JOHN BATTY, M.D., 20 Charlotte Square.
1867. TULLIS, WILLIAM, Markinch, Fifeshire.
1869. *TURNBULL, JOHN, of Abbey St Bathans, W.S., 49 George Square.
1880. TURNER, FREDERICK J., Mansfield, Notts.
1865. TURNER, WILLIAM, M.B., Professor of Anatomy, University of Edinburgh.
1878. URQUHART, JAMES, H.M. General Register House.
1862. *VEITCH, GEORGE SETON, Bank of Scotland, Paisley.
1873. VEITCH, JOHN, M.A., LL.D., Professor of Logic, University of Glasgow.
1877. VERNON, J. JOHN, Hawick.
1874. WALKER, ALEXANDER, 25 Dee Street, Aberdeen.
1874. WALKER, ALEXANDER, of Findyate, Ballinluig, Perthshire.
1859. *WALKER, FOUNTAINE, Ness Castle, Inverness-shire.
1879. WALKER, JAMES, 74 Bath Street, Glasgow.
1871. *WALKER, PETER GEDDES, 2 Airlie Place, Dundee.
1848. *WALKER, WILLIAM, Surgeon, 47 Northumberland Street.
1861. WALKER, WILLIAM STUART, of Bowland, 125 George Street.
1879. WALLACE, THOMAS D., Rector of High School, Inverness.
1872. WARDEN, ALEXANDER JOHNSTON, Marybank House, Broughty Ferry.
1879. WARDEN, Major-Gen. ROBERT, C.B., 4 Lennox Street.
1849. *WARE, TITUS HIBBERT, Stamford Road, Bowdon, near Altrincham, Lancashire.
1876. WATERSTON, GEORGE, Jun., 14 St John's Hill.
1870. WATSON, CHARLES, Writer, Dunse.
1873. WATSON, JOHN KIPPEN, 14 Blackford Road.
1875. WATSON, WILLIAM, 6 Douglas Crescent.
1871. *WATT, ARCHIBALD A., 42 Coates Gardens.
1856. *WEBSTER, JOHN, Advocate, 42 King Street, Aberdeen.

- 1879. WEDDERBURN, J. R. M., M.A., W.S., 32 Albany Street.
- 1877. WEIR, HUGH F., of Kirkhall, Ardrossan.
- 1877. WELSH, JOHN, S.S.C., 13 Arniston Place.
- 1872. *WEMYSS AND MARCH, Right Hon. the Earl of.
- 1880. WHITE, JOHN FORBES, Aberdeen.
- 1869. WHITE, Major T. P., R.E., Ordnance Survey.
- 1867. WHITE, ROBERT, Procurator-Fiscal, Forfar.
- 1870. *WHYTOCK, ALEXANDER, 7 George Street.
- 1871. WILLIAMS, WILLIAM EDWARD, Architect, Dooedale, Wallington, Surrey.
- 1870. WILSON, CHARLES E., LL.D., H.M. Inspector of Schools, 19 Palmerston
Place.
- 1872. WILSON, GEORGE, S.S.C., 16 Minto Street.
- 1875. WILSON, WILLIAM, West Lodge, Pollockshields.
- 1861. *WILSON, WILLIAM, of Banknock, Stirlingshire.
- 1852. *WISE, THOMAS A., M.D., Beulah Hill, Upper Norwood, London.
- 1863. WISHART, EDWARD, 22 Baltic Street, Leith.
- 1880. WOOD, JOHN MUIR, 22 Belhaven Terrace, Glasgow.
- 1870. WOOD, Rev. WALTER, F.C. Manse, Elie.
- 1875. WOODBURN, J. M.A., Drumgrange, Patna, Ayr.
- 1878. WOODWARD, Rev. JOHN, Union Place, Montrose.
- 1867. WRIGHT, ROBERT, D.D., Starley Burn House, Burntisland.
- 1871. WYLIE, ANDREW, Esq., Prinlaws, Leslie, Fife.

- 1878. *YOUNGER, ROBERT, 15 Carlton Terrace.

LIST OF HONORARY MEMBERS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND,

NOVEMBER 30, 1880.

[According to the Laws, the number is limited to TWENTY-FIVE.]

1853.

DANIEL WILSON, LL.D., Principal and Professor of English Literature,
University College, Toronto, Canada.

1855.

Major-General Sir HENRY C. RAWLINSON, K.C.B., D.C.L., London.

1857.

WILLIAM REEVES, D.D., Dean of Armagh.

1860.

Right Hon. LORD TALBOT DE MALAHIDE.
5 Dr RICHARD LEPSIUS, Berlin.

1862.

HIS ROYAL HIGHNESS ALBERT EDWARD, PRINCE OF WALES.
Dr FERDINAND KELLER, Zurich.
The PRINCE LOUIS LUCIEN BONAPARTE.

1864.

ALEXANDER J. BERESFORD HOPE, Esq., M.P., London.

1865.

- 10 Sir HENRY DRYDEN, Bart., Canons Ashby, Byfield, Northamptonshire.

1868.

THOMAS CARLYLE, Esq., Cheyne Row, Chelsea.

1869.

JOHN HENRY PARKER, Esq., C.B., D.C.L., Oxford.

M. FRANCISQUE MICHEL, Paris.

1871.

GEORGE STEPHENS, Esq., Professor of the English Language and Literature,
University of Copenhagen.

1874.

- 15 Sir JOHN LUBBOCK, Bart., M.P., High Elms, Kent.

J. J. A. WORSAAE, Councillor of State, Director of the Royal Museum of
Antiquities, Copenhagen, Inspector of the Archaeological Monuments
of Denmark.

Sir SAMUEL FERGUSON, LL.D., Public Record Office, Dublin.

JOHN EVANS, D.C.L., F.R.S., &c., Nashmills, Hemel-Hempstead.

1875.

Dr BROR EMIL HILDEBRAND, Secretary of the Royal Swedish Academy of
Archæology, &c., Stockholm.

1877.

- 20 Rev. H. O. COXE, Bodleian Library, Oxford.

Rev. JAMES RAINE, M.A., Hon. Canon of York.

Very Rev. A. P. STANLEY, Dean of Westminster.

1879.

Rev. WILLIAM GREENWELL, M.A., Durham.

AUGUSTUS WOLLASTON FRANKS, M.A., British Museum.

LIST OF THE LADY ASSOCIATES
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND,
NOVEMBER 30, 1880.

According to the Laws, the Number is limited to TWENTY-FIVE.

1870.

The Lady A. A. JOHN SCOTT of Spottiswoode, Berwickshire.

1871.

Miss C. MACLAGAN, Ravenscroft, Stirling.

1873.

The Baroness BURDETT COUTTS.

1874.

Lady DUNBAR of Duffas, Elginshire.

Lady CLARK, Tillypronie, Aberdeenshire.

Miss MARGARET M. STOKES, Dublin.

PROCEEDINGS
OF THE
SOCIETY OF ANTIQUARIES OF SCOTLAND.

HUNDREDTH SESSION, 1879-80.

ANNIVERSARY MEETING, 1st December 1879.

JOHN R. FINDLAY, Esq., Vice-President, in the Chair.

A Ballot having taken place, the following Gentlemen recommended by the Council were elected HONORARY FELLOWS of the Society:—

Rev. WILLIAM GREENWELL, M.A., Durham.

AUGUSTUS WOLLASTON FRANKS, M.A., British Museum.

And the following gentlemen were duly elected FELLOWS:—

JAMES CALDWELL, Esq., Craigielea Place, Paisley.

THOMAS S. CLOUSTON, M.D., Morningside Place.

Rev. WILLIAM BRUCE, B.D., Cantab., Dunimarle, Culross.

Major-General J. G. ROCHE FORLONG, 11 Douglas Crescent.

FRANCIS JONES, Esq., 78 Lauriston Road.

PATRICK COMYN MACGREGOR, Esq. of Brediland, Paisley.

J. W. SMALL, Esq., Architect, 56 George Street.

J. A. STEWART, Esq., 6 Constitution Terrace, Dundee.

FREDERICK J. TURNER, Esq., Mansfield, Notts.

The Office-Bearers of the Society for the ensuing year were elected as follows :—

Patron.

HER MAJESTY THE QUEEN.

President.

THE MOST HON. THE MARQUESS OF LOTHIAN, K.T.

Vice-Presidents.

JOHN R. FINDLAY.

Professor JOHN DUNS, D.D.

Rev. THOMAS MACLAUCHLAN, LL.D.

Councillors.

JAMES T. GIBSON-CRAIG, } *Representing the Board of Trustees.*
FRANCIS ABBOTT,

Professor Sir C. WYVILLE THOMSON, LL.D., Kt.

Sir WALTER ELLIOT, K.C.S.I.

W. F. SKENE, LL.D., D.C.L.

Professor AENEAS J. G. MACKAY, LL.B.

Professor NORMAN MACPHERSON, LL.D.

Captain F. W. L. THOMAS, R.N.

R. W. COCHRAN-PATRICK, B.A., LL.D.

Secretaries.

ARTHUR MITCHELL, M.D., LL.D.

JOHN ALEXANDER SMITH, M.D.

JOSEPH ANDERSON, *Assistant Secretary.*

Secretaries for Foreign Correspondence.

WILLIAM FORBES.

THOMAS DICKSON, H.M. General Register House.

Treasurer.

DAVID DOUGLAS, 9 Castle Street.

Curators of the Museum.

ROBERT CARFRAE.

WILLIAM FETTES DOUGLAS, R.S.A.

Curator of Coins.

GEORGE SIM.

Librarian.

JOHN TAYLOR BROWN.

Auditors.

ROBERT HUTCHISON.

THOMAS B. JOHNSTON.

Publisher.

DAVID DOUGLAS, 9 Castle Street.

The following list of the names of Fellows deceased was read by the Secretary :—

<i>Honorary Fellow.</i>		Elected
JAMES FARRER of Ingleborough, Lancashire, . . .		1855
<i>Fellows.</i>		
WILLIAM BRUCE, M.D., R.N., Dunimarle, . . .		1861
JAMES CASSIE, R.S.A., . . .		1872
JOHN CHALMERS, Castle Bank, Merchiston, . . .		1869
MICHAEL H. CRICHTON, Princes Street, . . .		1861
ANDREW GILLMAN, Westminster, . . .		1861
Right Hon. LORD GORDON of Drumearn, . . .		1860
Sir JAMES MATHESON, Bart., . . .		1858
ADAM MOSSMAN, . . .		1856
JOHN RODGER, S.S.C., . . .		1871
DAVID SEMPLE, Paisley, . . .		1873
JAMES STARKE, . . .		1858
Sir WALTER TREVELYAN, Bart., . . .		1862
ROBERT YOUNG, Elgin, . . .		1866

JAMES FARRER became a Fellow of the Society in 1855, and was elected an Honorary Fellow in 1861, in recognition of the service rendered to archaeology by the excavation of the great chambered mound of Maeshow in Orkney, of which he afterwards printed an account with lithographic illustrations of the plan and sections of the mounds, and with copies and translations of the Runic Inscriptions discovered on its walls—"Notice of Runic Inscriptions discovered during recent Excavations in the Orkneys, made by James Farrer, M.P." Printed for private circulation, 1862, 4to). Previous to this Mr Farrer had conducted several successful excavations among the brochs and tumuli of the Orkneys. Notices of these are given in the early volumes of the "Proceedings." Mr Farrer was also a liberal donor to the Museum, having from the first made it his practice to send all the products of his excavations to the Society, for our National Collection in Edinburgh.

Sir JAMES MATHESON took a general interest in the objects which the Society has in view, and entered warmly into the proposal to remove the peat from the site of the great Stone Circle at Callernish. He communicated an account of this examination of the monument, which was printed in the "Proceedings" of the Society (vol. iii. p. 110).

Sir WALTER CALVERLEY TREVELYAN, Bart., was at one time a frequent contributor of donations to the Society's Library, chiefly in the department of Old Northern Literature, for which his visit to the Scandinavian kingdoms gave him a liking. He was also an occasional donor to the Museum.

JOHN F. RODGER, S.S.C., a member of the firm of Maclachlan & Rodger, became a Fellow of the Society in 1871. He took an active interest in its affairs and its prosperity, and was for some time one of the Auditors of the Society's accounts.

DAVID SEMPLE, Writer, Paisley, became a Fellow of the Society in 1873. In 1864 he found the Poll-Tax rolls of Renfrewshire for the year 1695 in the charter chest of the Burgh of Paisley, and prepared them for publication. They were printed from time to time in the columns of

the *Glasgow Herald*, and six slips of each section were given to Mr Semple. These he pasted into volumes, adding a written alphabetical index of all the names in each parish. One of these six copies he presented to the Society's Library. In 1872 he published a volume entitled "Saint Mirin's; Historical Account of Old Houses, Old Families, and Olden Times in Paisley," and in 1876 a volume entitled "The Tree of Crocston," giving an account of the famous "Crocston Yew."

JAMES STARKE, Advocate, Troqueer Holm, Dumfries, became a Fellow of the Society in 1858. He had previously, however, when resident in Edinburgh in 1834, communicated a paper to the Society, entitled "Some Observations on the Justiciary Court of Scotland, with a continued series of the Justiciars and Justices-General." He went to Ceylon as Queen's Advocate in 1839, and shortly after his return renewed his connection with the Society by becoming a Fellow. He took an active part in the establishment of the Dumfriesshire and Galloway Antiquarian Society, to which he contributed a number of papers on subjects of local and historical interest.

ROBERT YOUNG, Writer in Elgin, became a Fellow of the Society in 1866. In 1872 he published a volume entitled, "The Parish of Spynie; an Account of its Civil and Ecclesiastical State from the earliest recorded period to the present time," and subsequently in 1879 a larger volume entitled, "The Burgh of Elgin and Parish of Spynie," in which the charter and family history of the locality was more fully dealt with.

The Secretary then read to the meeting the Annual Report of the Society to the Board of Trustees, approved by the Council, and ordered to be transmitted to the Lords of H.M. Treasury, as follows:—

"ANNUAL REPORT of the Society of Antiquaries of Scotland to the Honourable the Board of Trustees for Manufactures for Scotland, for the year ending 30th September 1879.

"During the past year the Museum has been open continuously, except during the month of November, when it was closed as usual for cleaning and re-arrangement.

"The number of visitors for the year is shown in the following table, distinguishing between day visitors and visitors on the Saturday evenings for each month :—

MONTHS.	DAY VISITORS.	SATURDAY EVENINGS.	TOTAL.
October.....	5,370	680	6,050
December.....	4,798	770	5,568
January.....	19,393	510	19,903
February.....	3,535	654	4,189
March.....	3,745	680	4,425
April.....	4,327	534	4,861
May.....	6,631	837	7,468
June.....	9,102	676	9,778
July.....	16,197	899	17,096
August.....	14,209	1,112	15,321
September.....	11,149	790	11,939
Total.....	98,456	8,142	106,598
Previous Year....	100,770	9,589	110,359
Decrease.....	2,314	1,447	3,761

"During the year 257 articles of antiquity have been presented to the Museum, and the donations to the Library amount to 135 volumes of books and pamphlets. There have also been added to the Library 163 volumes, purchased by order of the Council from the fund bequeathed by the late Mr John Mudie of Pitumies for that purpose.

"The valuable collection of original drawings of Old Edinburgh by the late James Drummond, R.S.A., has been presented by Messrs Waterston, Sons, and Stewart.

"An extensive and valuable collection of paintings bequeathed by the late David Laing, LL.D., as the nucleus of a National Gallery of Scottish Historical Portraits, along with a collection of antique gems, a vellum copy of Lyndsay's Heraldry and the Bannatyne Club Presentation Plate have been received from Mr Laing's Trustees, and added to the general collection."

MONDAY, 8th December 1878.

PROFESSOR DUNS, D.D., Vice-President, in the Chair.

A Ballot having been taken, the following Gentleman was duly elected a Fellow :—

JOHN FORBES WHYTE, Esq., Aberdeen.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

By the trustees of the late David Laing, LL.D.

1. A collection of portraits chiefly in oil colours, designed by Mr Laing to be the nucleus of a National Gallery of Scottish Portraits :—

Full length portrait of Adam Smith, author of the "Wealth of Nations"; half lengths of Rev. Dr Henry of Greyfriars, author of "A History of Great Britain"; of Sir Hans Sloane; of Sir Patrick Hume, Earl of Marchmont; of William Purves, by Sir P. Lely; of Field-Marshal Wade; of John Runciman, Artist, by himself; of Alexander Runciman and John Brown disputing, by John Runciman; of James Tassie; of Sir W. Chambers, Architect; of Professor John Playfair; of the Hon. A. Murray, by Allan Ramsay; of Allan Ramsay, by himself; of David Anderson, Architect, Aberdeen; of Andrew Geddes, Artist; of Professor Mackay, Professor of Civil Law, Edinburgh; of Rev. Gilbert Burnett, D.D., Bishop of Salisbury; of the Rev. Dr Thomas Drummond; of Sir David Murray; of Rev. Robert White. Also a miniature head of Sir Walter Scott in infancy, painted in water colour on ivory, as described and figured in the Scott Centenary Exhibition Catalogue, and five portraits, two of which are supposed to be likenesses of Lord Darnley and King James VI. when a boy, the others uncertain.

2. A collection of engraved gems 39 in number, as described in the following notice, by Mr Henry Laing, author of the two volumes of Scottish seals, to whom the collection was submitted for description :—

The collection of engraved Gems bequeathed by Dr D. Laing to the Society, though not very extensive, or containing any that can be placed in the highest class of such engravings, is yet very interesting as containing some examples of the earliest as well as of the more advanced state of that beautiful art, and may well be appreciated as fairly representative of the art which attained such excellence in the best periods of Greece and Rome, and which still remains unsurpassed.

The whole number of this collection is thirty-nine, of which four are Cameos and the remainder are Intaglios, mostly small, the stones of good quality, and many mounted in gold for Rings, as more particularly described in the accompanying list.

CAMEOS.

1. Agate—Head of the young Augustus, profile, unmounted.
2. Do. Head of Archimedes (?), profile, unmounted.
3. Do. Young Hercules, profile, mounted in gold for a Brooch.
4. Sardonyx—Figure of a young Fawn sitting with a double flute before him, mounted in gold for a Ring.

INTAGLIOS.

5. Carnelian—A mere fragment of a Scarabeus.
6. Obsidian—Head of a Fawn, profile, an excellent engraving, unmounted.
7. Sard—A figure of a Man sitting holding a Mask and a Thyrsus, early and good work.
8. Carnelian—Scarabeus (Sacred Beetle), an Armed Warrior, early work unmounted.
9. Obsidian—Head of Ariadne, profile, modern engraving, unmounted.
10. Solid Carnelian Ring—Head of Roman Emperor.
11. Obsidian—A Scarabeus, some symbolic figure apparently, very rude work, mounted in gold.
12. Carnelian—A Scarabeus, figure of a Warrior, rude work, mounted in gold for a Ring, as are all the following excepting two.

13. Carnelian—A Chimera or some unknown animal, like the preceding, very rude.
14. Onyx—A Lion walking with a ram's head in its mouth, good engraving.
15. Onyx—Hercules overcome by Love, very good work, but unfortunately rather damaged.
16. Chrysoprase—A Goat-Herd milking a Goat.
17. Carnelian—Amphitrite riding on a Sea Bull.
18. Do. Venus sitting before a Mirror attiring her hair.
19. Do. Head of an Eagle, good engraving, mounted in gold as a Seal.
20. Onyx—Figure of a Warrior with Spear and Helmet.
21. Sard—Cybele riding on a Lion.
22. Onyx—Figure of a Hunter with Spears and a Dog, very good engraving.
23. Sard—A Wild Boar and Dog, very good work.
24. Do. Figure of Adonis.
25. Carnelian—Figure of an aged Man, in a conical-shaped cap, sitting beside a Sphinx, holding in his left hand a Spear and a branch of Laurel, probably some symbolic figure.
26. Sard—Achilles drawing the Arrow from his heel.
27. Onyx—The Muse Terpsichore.
28. Carnelian—A Female offering Sacrifice.
29. Obsidian—A Man examining a Helmet.
30. Emerald—Winged figure of Victory.
31. Amethyst—Mercury with Caduceus and Purse.
32. Rock crystal—Head of Seneca, profile, good work.
33. Sard—Head of the Emperor Nero.
34. Carnelian—Head of the Emperor Nerva.
35. Sard—Head of Jupiter-Stater, profile, crowned with the corn measure.
36. Sard—Bust of a Bacchante, front face, an excellent engraving.
37. Amethyst—Head of a Bacchante in profile.
38. Sard—Head of one of the Roman Emperors.
39. Obsidian—A Fragment of a front face Head of Medusa.

3. Four volumes of the publications of the Bannatyne Club that were wanting in the set belonging to the Society's Library, viz: "The Catalogue of the Abbotsford Library," 4to, 1838; "Liber de Calchou," 2 vols. 4to, 1846; "Liber de Dryburgh," 4to, 1848.

4. Copy on vellum of the facsimile of an ancient heraldic manuscript, emblazoned by Sir David Lindsay of the Mount, Lyon King of Arms, engraved by W. H. Lizars, and edited by David Laing, folio, published at Edinburgh by W. & D. Laing, 1822.

5. The Bannatyne Club Silver Plate presented to Mr Laing as Secretary of the Club. This testimonial, which consists of a statuette of Sir Walter Scott by Slater, is represented among the illustrations to the Catalogue of the Scott Centenary Exhibition, 4to, Edinburgh 1871, and the following note appended to it by Mr Laing himself sufficiently explains its history :—

“ At the termination of the Bannatyne Club in 1860, of which Sir Walter Scott was the founder in February 1823, the members, without my knowledge or desire, subscribed for a testimonial to be presented to me, having acted as Hon. Secretary during the whole time of its existence. The form that this testimonial might assume was left to myself ; and I could not but desire, in grateful and pleasing recollections, to have the chief portion associated with the founder. A composition designed and modelled by Mr Peter Slater was adopted, consisting of a handsome Silver Vase, and of three emblematical figures of History, Poetry, and Music, surmounted with a statuette of Sir Walter Scott as founder of the Club. In a volume of *Adversaria*, which I subsequently presented to the members from the surplus fund, a lithograph print of these figures were given.”

The following communications were read :—

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I.

NOTICE OF THE DISCOVERY OF TWO SCULPTURED STONES, WITH SYMBOLS, AT RHYNIE, ABERDEENSHIRE. BY Miss C. MACLAGAN, LADY ASSOCIATE.

Having been informed that certain ancient sculptured stones had been dug up from the foundations of the old parish church of Rhynie in the summer of 1878, I visited the place with the intention of making sketches of them ; but on arriving I was disappointed to find that of the two sculptured stones only one was then above ground, the other having been taken by a mason who was employed to build a wall around the churchyard, and had used it as a foundation for a gate-pillar. I was further informed that that stone was not only buried, but was broken up, and that part of it had been made into road metal.

Notwithstanding all these discouragements, I still entertained a strong desire to see so much as remained of this stone, and determined to make an effort in that direction.

His Grace the Duke of Richmond and Gordon being the lord of the soil (and so far as I know sole heritor of the parish), the offending gate-pillar could not be touched without his permission. This my friend Mr Murrie, banker in Stirling, kindly offered to request of His Grace, and he in the most prompt manner granted it, and wrote to his factor, Mr Wilson, Huntly, to render me whatever assistance was in his power.

Mr Wilson at once arranged for me to meet the same mason who had built the gate-post over the sculptured stone.

I accordingly met this man on the 24th of June, and with the assistance of a blacksmith the pillar was taken to pieces, and the coveted relic of antiquity rescued from its grave. The stone proved to be of granite, and the remaining portion is only 3 feet in length and $10\frac{1}{2}$ inches in breadth (the thickness being less than 1 foot), but the mason confessed to having broken off from its length about other 3 feet, and this at the end where most of the sculpturing stood.

The accompanying woodcut (fig. 1), from a drawing of the stone, will be its best description.

The figures cut on it are of the usual symbolic forms, and are deeply incised excepting one (the sceptre head unattached to the rod), which, apparently, the artist had seen to be badly placed, and so left it unfinished, and probably in its stead sculptured the one on the right hand.



Fig 1.



Fig. 2.

Sculptured Stones found at Rhynie, Aberdeenshire.

Along with the drawing of this stone I send that of its fellow (fig. 2). It is of basalt, and is about 5 feet 4 inches in height. Its sculptured surface appears as if some smoothing friction had been applied before the cuttings had been made.

The incised lines are rather broad, and are not deep, but are in perfect preservation.

It will be seen that it too is shorn of its original proportions. Along with these two sculptured stones were dug up a number of other large stones, but it is doubtful if there is any connection between these and the former.

II.

NOTICE OF A CHARTER OF CONFIRMATION BY KING FREDERICK THE THIRD OF DENMARK AND NORWAY (1662), AND OTHER DOCUMENTS IN THE NORSE LANGUAGE RELATING TO SHETLAND.
By GILBERT GOUDIE, Esq., F.S.A. Scot.

The documents now submitted, seven in number, range in date from the middle of the sixteenth to the early years of the seventeenth century; one, dated in 1607, being the latest known instrument of any kind framed in Shetland or Orkney in the old language of the North. The other deeds in Norse, formerly known as preserved in the Islands, are only nine in number, so far as I am aware. Of the multitude, therefore, of such documents which must have been produced in the Islands in early times, only sixteen appear to have come down to us, all of these relating to Shetland except one (Kaup-bref, 1552), which records a sale of land in Papa Westray in Orkney.¹ Besides these, however, a number of other documents in Norse, of various kinds, having reference to the islands, are preserved abroad, either in the original, or as authenticated copies; and are to be found in the *Diplomatarium Norvegicum*, the great Norwegian collection, and a few also in the *Diplomatarium Islandicum*, published by the Icelandic Literary Society, Copenhagen. Of the documents now before us, one (the Royal Charter) is drawn and executed in Denmark, and three in Norway; the others are apparently native Shetland papers.

¹ Six of these documents are contained in the small collection privately printed by Lord Neaves and Sheriff Maconochie; one (a copy) is printed in the Appendix to "The General Grievances and Oppressions of the Isles of Orkney and Shetland," (Edin. 1751); and two, which I found among the papers of the County Court of Shetland, are printed and described in the "Proceedings of the Society," vol. xii. p. 472, *et seq.* The remaining seven are submitted with this paper.

In my former paper on Norse deeds,¹ I endeavoured to offer some explanations in regard to the Udal system of land tenure and transfer, now superseded for most part by feudal holdings and feudal forms of conveyancing, in conformity with the law of Scotland; and also in reference to the local institutions and usages peculiar to Shetland and Orkney. The present documents contain fewer of these local peculiarities, or, at any rate, of new features of local peculiarity, and therefore it only remains for me to supply transcriptions and, as nearly as may be, literal translations of the documents, with such brief explanations in passing as may seem necessary.

The two deeds first in order, and the whole series of relative documents printed in the Appendix, are the property of John Bruce, Esq. of Sumburgh, who, when I was in Shetland last summer, laid open to me the treasures accumulated during nearly three centuries in his family charter-chest. In going over these with him, the two documents in question, with many other valuable papers, came under my eye; and the best thanks of the Society are due to him for at once placing these documents in our hands, and authorising their being made use of on the present occasion.

DEED NO. I.

1. *Transcription.*

Vii Frederich Den Tredie med Guds Naade Danmarkis Norgis Wendis och Gottis Koning, Hertug udi Slesuig Holsten Stormarn och Dytmorshen, Grefur udi Oldenborg och Delmenhorst: Gior all witterligh, Eftersom hoss oss under danigst ansugis woris naadligst Confirmation paa efter shrefuene Transport liudendis ord fra ord som følger: Kiendis Jeg Peder Pedersen Borgemester udi den Konngl: frii Rigs stad Kiöbenhofn, och hermed for all witterligt giör, at efttersom Kongl: Maj: min allernaadigste herre, hafuer naadigst pandtsat och affhendt Bergen Domb Kierchis Prousty, eller Apostels Goetzits lehn Kaldt, til mig och min søn Carl Rosenmeyer, Borger och handelsmand her udi staden, for en anseelig summa penge, som wii derfor hoistbemele hans Konngl: Ma: och Riiget rigtig hafuer tilstillet och fornøyet, efter allerhoystermelte hans Kongl: Ma: naadigst meddelte pante skiödis widere formelding Dat. den 25

¹ Proceedings, vol. xii. p. 472.

Julii An : 1661 hueraf en rigtig copie her hoss følger. Och efftersom wii, efter samme schiödis indhold er naadigst forundt och tillat forbemelte Apostels Lehn och des tillegendis goedz, til andre at maa updroge och afhende, alt, ellr noget deraf, som det med ligr condition och wilckor, efter pantebrefuetz indhold, skall niude, til et frit brugeligt underpant indtil det af hoystbemelte hans Kongl : Ma : och efterkommere Koninger udi Danmark och Norge, det Konngl : huus och deres arfvinger, for dend summa det nu er pantsat för, igien indlöst wordet. Sa hafuer Jeg paa min egen saadcl som bemelte min kiere Soens wegne, igien pantsat, och aflendt fra oss och voris arfvinger, det goedz som ligger paa Hetland, saauit til samme Apostels Lehn beliggende er, som efter **beretning** kaldis, paa Hetland, Sundbrog och Ombodtz Goedz, och skylder aarligen, efter **Jordbogens** lydelse Smór femb Tönder, och Thi pacher wadmcl, och det til den **edle** och mandhaftigtr Captein Leütenant Lorentz Medelton, hans hústra, deris arfvinger och efterkommere, hrür forr hand mig efter forening hafuer laet erlegge och tilstille penge It Tusinde och Halftrediesindstüige R.dr : for huilchen summa—1050 R.Dr. meerbemelt Capt : Leütenant Lorentz Medelton, hans hústrú och arfvinger, **hermed** fuldkommen pantsættis och til dennom afstaais alt det goedz och Rettighed, med ald des tilliggende herlighed, fiskeuand och faægang, waat och thört, til fields och i fiere, som der nu tilligger, ellr af arrildstiid til liget hafuer, indtet undertagendis i nogen maader, Saauit som oss, Efter samme panteskiode och Jordebogs indhold, paa Hetland, med rette til kommer, och som til bemelte Apostels goedz liggendis er, och skylder som ofüer er melt, strax at maa tiltrede, annamme, och oppberge och gior sig saa nöttig, som hand best wed och kand, aldelis efter hoystbemelte hans Konngl : Ma : naadigste pante skiödis egentlig indhold, at maa hafue til et frit och brugeligt pant, angaaende fra Phil : Jaco : daug i neruerende aar 1662, och siden frembdelis aarligen continüere indtil det af hoystbemelte hans Ro : Ma : eller hans Maj : efterkommere Koninger udi Danuark och Norge, det Konng : húús, och deris arfvinger, for for sk[refne] summa det nu er pantsat for, indlöst wordet, som da for samme summa skall folgagtig were och til lösen kommer, mens dersom hans Kongl : Ma : naadigst blef til sinds samme goedz til Odel och eiendoms at afhende, da skall det blifue Capt : Leütenant Lorentz Medelton, hans hústrúe och Arfvinger, til kiende gifuit, om de det eyendomlig och til Odel sig, will tilforhandle. Dis til widnisbyrd hafuer jeg [*det*] paa min egen, och min [*søn*] Carl Rosenmeyer weigme med egen haand och signete bekrefftiget. Datum Hafua den 20 October 1661.

PEDER PEDERSONE.

Saa wille wi for^a indførte Transport naadligst hafur Confermeret och stadfest, saa och hermed udi all dez ord och indhold som for skrefuit staaar Confermerer, och stadfester, Forbuidendis all och enbuer herimod eftersom for skrefuit staaar at hindre eller udi nogen naader forlang at giøre under wor hyldest och naade. Gifuit paa woris Konngl : Residentz udi Kiøbenhofn dene 28 Augusti : Ao : 1662.

Under wort signet,

FREDERICH.

2. Translation.

We, Frederick the Third, by the Grace of God, king of Denmark, Norway, and of the Wends and Goths, duke of Slesvig-Holsten, Stormarn, and Dytmarshen, count of Oldenborg and Delmanhorst, make publicly known to all : Whereas, there is humbly requested of us our most gracious confirmation of the afterwritten Conveyance, bearing, word for word, as follows :—I, Peder Pedersen, burgomaster of the royal free capital city Kiøbenhofn, acknowledge, and hereby make publicly known to all, that whereas his Royal Majesty, my most gracious Lord, has most graciously mortgaged¹ and transferred the provosty of the Dom Kirk of Bergen, otherwise called the Apostles' estate feu,² to me and my son Charles Rosenmeyer, burgess and merchant in this city, for a considerable sum of money, which we, therefore, to his foresaid Majesty and the State have justly paid and satisfactorily accounted for, as more fully set forth in his Majesty's deed of mortgage, dated the 25th July anno 1661, whereof a true copy follows. And whereas we, according to the contents of the foresaid deed, are authorised and permitted to convey and transfer to

¹ The word in the original is *pauðtsæl* (pawned or pledged), and in the contemporary translations, printed in the Appendix, of other relative deeds, the transaction is throughout referred to as a "Wadset"; but as this is now an antiquated term in Scottish law, I have used the more modern, though perhaps less strictly accurate, term of "Mortgage." Mr James Macdonald, W.S., has shown to me the distinction in the following explanatory note, viz. :—"The deed granted by King Frederick appears to be very similar to the Scottish *wadset*; indeed, but for the absence of the technical clauses of feudal law, there is no essential difference. The main feature of the *wadset*, viz., the *actual delivery to the lender* of the impignored lands is clearly the feature of the deed, and the transaction may therefore be described more accurately as a *pawn* or *wadset* than as a *mortgage*, in its modern sense."

² *Apostels Gøttsits lehn* in the original. The contemporary translation in the relative deeds printed in the Appendix is "Apostles Land Goods;" but as the word *lehn* invariably means *fief* or *feu*, the term used above, "Apostles' estate feu," is a more accurate rendering.

others the foresaid Apostles' feued estate and subjects appertaining thereto, all or any portion thereof, with the like condition and terms, according to the tenor of the deed of mortgage, to be enjoyed as a free and available under-mortgage until the same may be redeemed again by his Majesty and his successors, Kings of Denmark and Norway, the royal house and their heirs for the sum for which it is now mortgaged: I have, therefore, as well on my own behalf as that of my foresaid dear son, again mortgaged and transferred from us and our heirs the lands which lie in Hetland so far as pertaining to the same Apostles' lands which, according to report, are called, in Hetland, Sundbrog and Umbooth Lands, and paying yearly according to the Rental-Book, five barrels of butter and ten packs of wadmell, and that to the honourable and gallant Captain Lieutenant Lorentz Medelton, his wife, their heirs, and successors, for which he has, according to agreement, paid and remitted to me one thousand and fifty rix dollars money, for which sum—1050 R. Dr. the foresaid lands and rights are hereby fully mortgaged and renounced to the foresaid Captain Lieutenant Lorentz Medelton, his wife, and heirs, with all the privileges appertaining thereto, fishing and pasture, wet and dry, from fell to foreshore, as now pertains or has from time immemorial pertained thereto, nothing excepting in any particular, so far as to us, according to the tenor of the said deed of conveyance and contents of the Rental Book in Hetland, rightly belongs, and so far as pertaining to the said Apostles' estate, and paying as above mentioned, to enter upon immediately, receive and enjoy, and turn to such advantage as he best knows, and can, altogether in accordance with the true tenor of his Majesty's most gracious deed of mortgage, to be held as a free and available mortgage from Philip [and] James' day¹ in the present year, 1662, to continue aye and until it shall be redeemed by his foresaid Majesty or his Majesty's successors, Kings of Denmark and Norway, the royal house and their heirs, for the before-written sum for which it is now mortgaged, for which same sum [it] shall consequently fall to be redeemed. But if his Majesty should be graciously pleased to make over the said lands in Odal right and possession, then shall intimation be given to Captain Lieutenant Lorentz Medelton, his wife, and heirs, in case they may wish to acquire it to themselves in property and Odal tenure. In witness of this I have, on my own behalf and that of my son Charles Rosenmeyer, affirmed the same with my hand and seal. Given at Copenhagen, the 20th October 1661.

PEDER PEDERSONE.

¹ *i.e.*, the First of May.

The before-contained Conveyance we have graciously confirmed and ratified, and we hereby, under our favour and grace, confirm and ratify with all its words and contents as stands before written, forbidding all and every one to hinder or cause impediment to what is before written. Given at our royal residence at Kiöbenhofn, the 28th of August in the year 1662.

Under our Signet,

FREDERICH.

This deed is in an excellent state of preservation. It is carefully written on paper, in a handwriting approaching the modern German written character, signed by the king, and impressed with the royal seal. The latter bears the legend: FREDERICUS III. : DG. DANLE. NORWEGIE. VANDALORUM. ET. GOTHOR. REX, with an inner legend: DUX. SL. HOL. ST. DIT. COMIN. (f) OLD. ET. DEL.—the usual contracted form of the royal designation as given above in the opening clause. The deed bears no title, but I have termed it a “Charter of Confirmation,” not from regarding it, in the strict sense, as a feudal confirmation, by a superior, of a vassal’s holding, but as a charter by the king ratifying a partial transfer of a former mortgage or wadset granted by himself. The whole question of *Udal versus* feudal holding in the North necessarily arises in considering such legal instruments as these; and having in a former paper adverted to the subject, I shall content myself now by introducing a note on the nature of the charter as from the point of view of a Scottish lawyer, which has been obligingly furnished to me by Mr Henry Gondy, Advocate. I may only remark that whatever there may be in it, as a purely Danish deed, of the nature of feudal technicality, does not imply a correspondence of that character in the Norwegian and native Shetland deeds which follow. These are purely *Udal*, destitute of all the terms and conditions which are essential to feudal holdings.

NATURE OF THE CHARTER.

(1.) This charter must probably be regarded as a feudal one. It seems to correspond to what among Scotch lawyers would be known as a charter of confirmation by a superior of a right of wadset. The deed, no doubt, is wanting in those clauses of style which are familiar in our

conveyancing, but then it is a purely Danish document. In other respects it has the features of a proper confirmation. The use of certain terms, such as *confirmation*, *under-pandt* (which means sub-mortgage, and could not well be used with reference to an ordinary assignation of a security), and *lehn* (in *Apostels Goetzits lehn*) points strongly to a feudal character. The word *lehn*, especially, both in the Scandinavian and German languages invariably indicates feu or fief. So we observe the stipulation for a right of redemption in Frederick, and the important clause towards the end of the deed, by which provision is made for the conversion of the mortgagee's right into *odal* or *udal* holding. It might be argued that this latter clause referred to a conversion from a security right into one of full property, but this is not likely. Conversion from feudalism to udalism seems to have been well known to Danish law at this period.

Feudalism appears never to have gained any footing in Norway, either before or subsequent to its union with the Danish Crown; but it is not unlikely that this *provostry* of Bergen was originally udal property, and being confiscated by the crown at the time of the Reformation, was thereafter treated as feudal, the feudal law prevailing extensively in Denmark. The lands in Shetland being appurtenant to the provostry, came, of course, into the same position.

(2.) Though, as we have indicated, Frederick confirmed in feudal form by the above charter the assignation by Pedersen and Rosenmeyer to Medelton of the provost lands in Shetland, the lands seem still to have been regarded in Shetland as in their old condition of udal. For we see in the subsequent transmission by Medelton to Bruce, that no notice is taken of this charter in the enumeration of titles in the conveyance—the assignation there referred to being one by Pedersen and Rosenmeyer's commissioners (the Hansens) to Medelton, which, again, is not noticed in the confirmation. This seems worth observation, as indicating how little footing the forms of feudal tenure had gained in Shetland at that period.

(3.) But in all the transmissions of the said provost lands in Shetland, the right of redemption in the Danish Kings is referred to as existing. A good while prior to 1661 these lands had been confiscated by the

Earl of Orkney and turned by him into feu, but despite that (and it shows the strong belief in Shetland that they still belonged to Norway) we find a person like Medelton paying 1050 dollars for a purely Norwegian (or Danish) title. And Bruce deems it necessary to fortify his title from the same source.

It might be a question how far the stipulation for redemption by Frederick and his successors could have been enforced, supposing they had wished to exercise it. We fear it could not well be recognised, at least in a question of legal right, as otherwise than nominal. If Shetland were at the period in question an integral part of Scotland, then the positive law of Scotland would need to apply, viz., that no foreigner could hold heritable property within the kingdom. *In foro conscientie*, no doubt, another verdict might have been given, but so far as a Scottish court was concerned, Mr Bruce could have successfully resisted on this plea any demand for redemption. And, of course, the further bar of prescription might have been pleaded. But then, how far was Shetland subject to the law of Scotland at this period?—(H. G.)

King Frederick III., who grants the confirming charter, is a well-known personage in Dano-Norwegian history. In his reign, which extended from 1648 to 1670, an extraordinary revolution occurred, the people having surrendered their liberties into his hands, and rendered him a despotic sovereign. Of the granters of the deed which is confirmed by the king, nothing further is known; and the grantee, Captain Laurence Middleton, is not now known otherwise than in connection with this transaction. It appears from the deed printed in the Appendix,¹ that his father was named George Middleton, and his mother Margaret Tyrie, and he was himself alive so late as 1705, a receipt granted by him in that year being preserved among the papers belonging to the estate of Busta.²

¹ Contract between Captain Laurence Middleton and William Bruce of Sumburgh, 1663. Appendix, p. 39.

² In an excerpt minute now in my possession, of a meeting of heritors in Shetland, at Lerwick, 11th March 1691, the sederunt includes "Captain Laurence Middleton of Futtabrugh." Futtabrugh is a small place in the parish of Walls (Vågr).

The lands conveyed in the deed are described as the "Umbooth Lands" of Sundbrog or Sumburgh, part of the "Apostles'¹ land goods" (properly Apostles' estate feu), belonging to the provostry of the Dom-Kirk (or Cathedral) of Bergen in Norway. How the Cathedral Chapter, or any official member of it, came to be possessed of lands in Shetland, as part of their patrimonial property, is not at present known. Certainly the bishopric of Bergen possessed no jurisdiction over Shetland, the bishop being, like the bishop of Orkney and Shetland, himself a suffragan of the metropolitan see of Drontheim. But the connection between Bergen and Shetland was always very close. The provost of the Cathedral had other lands besides the small piece at Sumburgh, viz., 10½ merks in Helliness, parish of Cunningsburgh, as appears from a deed in the Appendix;² and *Munkaliv's Cloister*, or the Monastery of St Michael at Bergen, had a considerable landed estate in Shetland, particulars of which are detailed in the *Bretbyg* or Chartulary of the Monastery.³ Many private persons residing in Bergen also possessed lands in the islands, as is attested by numerous deeds extant; among others, Nos. IV. and VII. in the present paper (see pp. 29 and 32). Sir David Sinclair of Sumburgh, third son of William, earl of Orkney and Caithness at the time when the islands were pledged to Scotland, was Great Fowde of Shetland, and at the same time Captain of the Palace at Bergen. By his will, dated at Tingwall, 9th July 1506,⁴ he bequeathed his signet to the Dean of Bergen, and to St George's Altar in Roskilde Cathedral his gold chain which was given to him by the King of Denmark; but there is no record of any grant by him of land for ecclesiastical purposes. The extent of this bit of Church property being so small, and its situation—interspersed with the manor lands of Sumburgh—so intricate, the probability would

¹ UMBOOTH LANDS, known also in Shetland anciently as BISHOP'S LANDS. The word indicates merely its being administered by an agent or factor, in place of the absent owner.

² Contract, Captain Middleton and W. Bruce. Appendix, p. 39.

³ *Bretbyg*, or *Codex Diplomaticus Monasterii Sancti Michaelis Bergensis diocesis vulgo Munkalif dicti*, 4to, Christiania, 1845.

⁴ Translation, "Miscellany of the Bannatyne Club," vol. iii. p. 165.

seem to be that it had been so held, concurrently with the more extensive estate of the lay owners, from an early period, and that it had not been recently acquired by the Church.¹ It is found to have been recognised as a separate holding long before the date of the present deeds. In a contract between Earl Patrick Stewart and William Bruce of Symbister in 1592, confirmed by them in 1605, it is described as "four-merk land, six pennies the merk, callit Provestis landis, lyeand rynrig with the 20-merk land of Soundbrugh;" and the earl grants it in feu-farm, with warrandice against any pretenders to it from Denmark or Norway.² The annual duty (skat!) which it paid, is stated in the present Danish deed of 1662 to be 5 barrels of butter and 10 packs of wadmell,³ which appears to have been the recognised duty in Shetland previously, as, in the year 1595, William Bannatyne of Gairsay, Sheriff-depute of Zetland granted receipt to William Bruce for this duty, with 7 merks Scots money added, "for the full deweties of ye provest of Norrowayis landis."⁴ In 1635 it is referred to in a receipt for the duties, to Robert Bruce of Simbister, signed by James Scott, "Chamberlain-deput for Zetland, for William Dick off Braid," as the "four-merk tak-land" in Sumburgh;⁵ and this distinction between it and the other manor lands of Sumburgh has been maintained down to quite recent times. In the "Skat Book" of a part of the lordship of Shetland, 1778-1779, prepared for Sir Laurence Dundas (then proprietor of the earldom and lordship), and now in the possession of Mr Bruce of Sumburgh, the four merks are separately stated as "Udal," while the rest of the grounds of Sumburgh is termed "feued land." The whole duties

¹ So early as 1312-1319, there is recorded a grant of Shetland land revenues for ecclesiastical purposes in Norway, but only temporarily. For the completion of Mary-Kirk in Christiania, King Hakon Magnusson makes over "all our incomes of Hjaltland and the Faroes, so that those who have charge of the Kirk's building and fabric every year shall render account thereof to our heirs, and when the fabric is altogether completed, then shall the foresaid revenues of Hjaltland and the Faroes revert to the Crown."—(Nicolaysen, *Norske Fornlevninger*, p. 426.)

² Official extract in the possession of John Bruce, Esq. of Sumburgh.

³ Wadmell (Icelandic *Vadmal*) coarse native cloth used in payment of rents and duties.

⁴ MS. in the possession of John Bruce, Esq., of Sumburgh.

⁵ *Idem*.

(*Skat, Wattle, Or, and Sheep money*) payable by the Sumburgh estate having subsequently been bought up from Lord Dundas, the distinction has now practically (though doubtless not legally) disappeared. How this fractional portion of Church property became part of the estate of Sumburgh, in the possession of the present family, is shown by the succession of deeds printed in the Appendix, which disclose the following circumstances connected with this, by far the most interesting, example of Northern conveyancing extant :—

1. The provost of the Cathedral Church of Bergen in Catholic times owned a considerable landed estate called the “provostry of the Dom-Kirk of Bergen,” or “Apostles’ estate feu.” Of this estate a portion was situated in Shetland, including the 4 merks at Sumburgh and 10½ merks at Helliness. The property of the Church having been annexed to the Crown by King Christian III. at the Reformation, the whole of these lands appear to have come into the possession of the sovereign of the united kingdom of Denmark and Norway,¹ and were mortgaged or pawned by King Frederick III. on 25th July 1661 (under distinct provision for their redemption by him or his successors at any future time), to Peder Pedersen, provost of Copenhagen, and Carl Rosenmeyer, burghess and merchant there, for a sum of 35,066½ rix dollars and 16 shillings Danish money. (See the deed A in the Appendix.)

2. The said Peder Pedersen and Carl Rosenmeyer granted, on 5th August 1661, a commission or factory to represent them in the said estate, to Niels Hansen, formerly provost of Elsinore, and his brother Peder Hansen, councillor of Bergen. (See Appendix B.)

3. Peter Pedersen, on his own behalf, and that of his son Carl Rosenmeyer, granted on 20th October 1661, a partial assignation, transfer, or sub-mortgage of the Shetland portion of the lands, called the “Umbooth Goods” (or lands) of Sumburgh, to Captain Laurence Middleton and his

¹ By the Treaty of Calmar in 1397, the three crowns of Denmark, Norway, and Sweden were united; but it must be understood that the Orkney and Shetland Islands though, in that way, under administrative rule from Copenhagen, the chief residence of the sovereign, were yet always an appanage of the crown of Norway.

spouse, for the sum of 1050 rix dollars, subject to redemption for that sum by his Majesty or his successors, as before. (See No. 5.)

4. Niels Hansen and Peder Hansen, by deed of the same date, as commissioners under the deed of 5th August 1661 (see No. 2 above), granted a similar transfer of these lands to Captain Middleton. (This deed is not printed with the other deeds in the Appendix, as its terms are very similar to the preceding.)

5. King Frederick III. confirmed the assignation or sub-mortgage (No. 3 above) to Captain Middleton by the charter, the transcript and translation of which are printed above in the text, and which embraces, verbatim, the deed in Captain Middleton's favour.

6. Captain Middleton and his spouse, by contract dated at Scalloway in Shetland, 16th February 1663, make over their whole right and interest in the above Umbooth lands to William Bruce of Sumburgh for the foresaid sum of 1050 rix dollars, but under distinct clauses of redemption by the King of Denmark and Norway, and his successors, all as before. (App. C.)

The series of documents from which the above facts are gathered, exhibit a succession and admixture of Danish and Scottish law and forms of conveyancing not less interesting historically than curious to the student of legal antiquity. It is a singular circumstance that the right to so small a portion of the ancient property of the Norwegian Church should have been preserved for nearly two centuries after the annexation of the Shetland Isles to Scotland. It has already been shown that Earl Patrick Stewart treated it as his own property, and took it upon him to make it over to William Bruce of Symbister in 1592, and again in 1605.¹ It continued, however, as already shown, to be regarded as on a different footing from the other (feued) lands of Sumburgh; and a suspicion of a doubtful title seems to have lingered until the year 1663, when, as shown by the documents, William Bruce of Sumburgh obtained a formal title, but only in mortgage, to the four merks in question, by the succession of deeds proceeding from the King of Denmark and his nominees down to himself, seventy years after his grandfather, William Bruce, first of Simbister and Sumburgh, had obtained possession of them

¹ Extract deed in the possession of John Bruce, Esq. of Sumburgh.

by charter in feu-farm from Earl Patrick Stewart. They have since come down, by unbroken descent, to the present possessor, by whose kindness I am enabled to submit the documents to the Society.

It is scarcely necessary to say that the right of redemption so clearly provided for, has not yet been exercised, but it nevertheless would appear to exist unless extinguished by some of the prescriptions known to law. The exercising of that right on behalf of the Crown of Norway, as coming in place of the ancient ecclesiastical owners, stands indeed in the same position as does the claim of Norway (or Denmark) to the entire countries of Orkney and Shetland, the title of Great Britain to these islands resting exactly upon the same foundation, namely, a redeemable contract of mortgage.

DEED No. II.

1. *Transcription.*

Thes bekennis wij efter screffne men som saa hede bartell strang hans lúndemann mangus niysbet peder Jonssón dóyis ollsson olaff Symonssón for alle med thize wort obne breff thiz vij * * * hórdam och segom at wellfornostijg mann Ingemúnd Edredssón, y sýn quénnes folle och laglyg ombod mairann peder dotter och hennes barn, sualde och affúende tyll wellfornostijg man wýlliom skogssón iij merke brende yorde lyggend y giærdatun for nordann fiell y onst y papelle som fornemde marionn hennis fader peder wýlliomssón otte och erfíde efter syn fader och foreldres unden fornemde Ingemúnd endredssón och hans hústrú och barn arffuýnge och efter komende andre fornemde Wýliom skogssón och hans arffuýnge efter komende tyll [ecerdelig] egn med ollam lodom och lundendom som der tyll lyger och legiti halfuer fraa effste stenne y fíelle tyll óste stenne y fioren neden gaar och zin som beder er at haffue en mýste beplýkter jeg fornemde Ingemúnde endredssón meg tyll at halldre wýlliom skogssón fry okier lós for alt yttermer tyll tall heller okier och halfuer jeg fornemde Ingemúnde ophorit första penning och ssýst som y wort kiob kom saa meg well att nóger och yderner wýssen och [sand] hed beder jeg desse gode men som forscreffuet er [ad hinga] deres Insigle och mercker neden for thiz mytt obne breff [som] þaa Sódercyd den 2 dag august moned 1551.

INGEMUND ENDRESSON.

PETER JONSSON.

OLAFF SYMONSSON.



2. Translation.

This acknowledge we, the after-written men, who are thus called Bartell Strang, Hans Lundemann, Mangus [i.e., Magnus] Nisbet, Peter Jonsson, Doyis Ollsson, Olaff Symonsson, before all, by this our open letter, that we * * heard and saw that the honest man, Ingemund Endredsson [Henderson], as full and lawful representative of his wife Marionn Peter's-daughter and her children, sold and transferred to the discreet man William Skogsson iiii merks burnt [silver] of land lying in Gierdatun at the north hill in Onst, in Papelle, which the before-named Marionn's father, Peter Williamsson, owed and inherited after his father and ancestors, from the before-named Ingemund Endredsson and his wife and children, heirs, and successors, to the before-named William Skogsson and his heirs [and] successors for [an everlasting] possession, with all the parts and privileges which belong thereto or have belonged, from the highest stone in the hill to the outmost stone in the foreshore, and * * * which it is better to have than to lose. I, the forenamed Ingemund Endredsson, pledge myself to hold William Skogsson free without challenge for all further demand or charge, and I, the forenamed Ingemund, have received the first penny and the last as stipulated for in our contract, so that I am well content. And for further testimony and verity I ask these good men who are above-written [to append] their seals and marks underneath this my open letter [which was done] at Sodercyd the 2 day of the month of August 1551.

INGEMUND ENDRESSON.

PEDER JONSSON.

OLAFF SYMONSSON.



This deed is also the property of Mr Bruce of Sumburgh, found on the same occasion as the preceding one. It is distinctly written on paper, and is in a good state of preservation. The property sold is in the island of Unst, and the whole parties are apparently residents there. The only one of them known otherwise is Barthole Strang, who was owner of Voegarth in that island, and was, twenty-five years later, an active opponent of the oppressions of Lord Robert Stewart, first Earl of Orkney and Lord of Zetland of the Stewart family.¹ He left an only daughter, Christina, who, in 1622, claimed to be served nearest lawful heir to her

¹ "Oppressions in Orkney and Zetland." Maitland Club, p. 73. (*Bill of Complaynt gifvin in be Barthole Strang of Voigarth.* 1576.)

grandfather, James Strang of Voisgarth. *Gierdatun* is, I suppose, the modern Garratown, *Papelle* is Papal, *Sodereyd*, where the deed was signed, I cannot identify; the *north hill* must be *Saxaford*, the highest hill in the island, near the north end. A noticeable peculiarity of the deed is the *mark* adhibited by each of the parties signing, not a mere x as usual now with persons who cannot write, but a carefully formed symbol, apparently recognised as the distinctive mark of the individual.

DEED No. III.

1. *Transcription.*

Thette Bekennd jegh Chrýstenn Jonnsson Forsell Borger wdi Berenn mz thette mytt opne Breff och egenn handskryft att jegh haffuer opborrett aff erlige suennnd Wellem Donnellsson Forsell mynn freund iij (tre) gammieff daller och fer Kópmands daller paa mytt gods som jeg arueligenn er thhiill fallend efftter mynn salige Moder Merette Wellems dotter som liger wdi mytt barnnfóde ij 'Yettland wdi 'Yelle. Och haffuer jegh dze mz sadenn wýllkor opboret att de mynne freunder forskreffne Donnell Forsells sonner skulle veere de neste mennder thiill at Beckalde mytt gods for de forskreffne penninge som deres salige fader haffuer mygh thiill fornn giiffuett for denn partt som mygh aruelige wor thiill fallen efftter mynn salige fader Jonn Forsell som dereiis fader aff mygh koptte mz sadann forord att denn laundskyld som kommer paa mynn partt skall komme mygh thiill ennd nu ind thiill jegh for mynn siigte peninge aff forskreffne mynne freunder Donnell Forsells sonner Och thette Bekennder jegh Wellem Donnellsson paa myne Bróders wegen att der som forskreffne mynn freunde Chrýstenn Jonn icke far sygne penninge nar Gud wýll ý waer nar wij kommer jegenn nogen aff oss forskreffne Broderne Bróder daa maa Chrýstenn haffue wor frye loff att selge synn jord hufylikenn erlige mannd hannis sielff lýster Och * * * med sport de sligeste Bekennd jeg Wellem Forsell att jegh paa mynne Bróders wegen maa högeliigenn och well bettacke wor kjere freund forskreffne Chrýstenn Forsell att hand haffuer * * * wor leghet for * * skyld * * * wij aff erlige mannd forskreffner kopt * * att hand wij * * icke selge synn

¹ The letter here rendered "Y" might be read indifferently as "Z," thus "Zetland," "Zelle." Indeed, the form ZETLAND, which has no origin in etymology, owes its existence to the varying form of this letter.

partt ʒ jord thiill nogen andenn wdenn thiill os forskreune Donell Forsells
barn hnijlikz jegh miig forpliicter paa mʒnne Brodres wegen att giore
Chrʒstenn Jonnson enn liidan * * nar Gud wʒll wij finnis att svo er ʒ
sandhet som forskryffnuitt star selder jegh mʒtt signette neden for dette mʒtt
opne Breff och kʒerlige thiill beder jegh Jackop Spenns att sette sʒtt merke
her nedenn for thette mʒtt opne Breff som er skriffnet wdi, Berenn Jomfru
Marye * * dagh anno 1594.

CHRʒSTENN JONSSO
egenn hand.

2. Translation.

This, I, Christian Jonnson Forsell, burgher in Bergen, acknowledge by
this my letter patent, and my own handwriting, that I have received from the
honest man, William Donnellson Forsell, my kinsman, three old dollars and
four merchants' dollars on my property, to which I have succeeded heritably
after my late mother, Merette William's daughter, which lies in my native
place in Yetland, in Yelle; and I have received this with the condition that
my kinsmen, the sons of the before-written Donnell Forsell, shall be the
nearest persons [entitled] to claim upon my property for the before-written
money, which their late father formerly gave to me for the part which
has heritably fallen to me after my late father John Forsell, which their father
bought of me; with this proviso, that the rent which pertains to my part shall
come to me until I get my said money from the before-written, my kinsmen,
Donnell Forsell's sons. And this acknowledge I, William Donnellson, on
my brother's behalf, that if the before-written my kinsman, Christian Jonn
[son] does not get his money (when God will) in spring, when we, any of us,
the before-written brothers' brothers come again, then shall Christian have our
free leave to sell his land [to] whatever honest man he himself likes; and
* * with * * I, William Forsell, make known that I, on my brother's
behalf, greatly and well thank our dear kinsman, the before-written Christian
Forsell, that he has * * * our * * * for * * * rent * * we
bought from the honest man before written, that he * * * that he * *
does not sell his part in the land to any other unless to us, the before-named
Donnell Forsell's bairns; which I pledge myself, on my brother's behalf, to do
Christian Jonnson a little * * * when God will we find. That it is in
truth which stands before written, I set my seal underneath this my letter

patent, and I lovingly entreat James Spence to set his mark underneath this my letter patent, which is written at Bergen, the Virgin Mary's * * day, anno 1594.

CHRISTIAN JONSD

own hand.

This acknowledgment, or agreement, is endorsed with a mandate by Jonson in favour of William Donnellson Forsell, which here follows as a separate document.

DEED NO. IV.

1. *Transcription.*

Thett Be kennð jeg Chrýstenn Jonnsson Borger ꝛ Berenn miz mýnn egeun hand at Jeg giffuer erligh och well forstandige ssuend Wellem Donnellssonn Forsell bodend wdi Jettland mýnn full magt och Mandlighet att op bere mýnn land skýld wdi Jettland aff denn Jorls partter ssom mýgh arueligelige fallend er effter mýnn ssallige Moder och liger der * * * * mýnne wegne skall ind kreffue och mýg thiill troer hand att bettalle nar Gnd wýll hand haff kommer mod woerenn nest och forst kommend worder der maad skryffuer anno 1595.

wnder mytt mercke.



2. *Translation.*

I, Christian Jonnsson, burgher in Bergen, acknowledge with my own hand that I give an honourable and right prudent man, William Donnellson Forsell, dwelling in Jettland, my full power and authority to uplift my land rent in Jettland from those parts of land which have heritably fallen to me after my late mother, and lie there * * * * shall collect on my account, and he trusts to pay me when, God willing, he comes next and first ensuing spring [when] one shall write the year 1595.

Under my mark.



The foregoing mandate and the deed of agreement preceding it, as also the two following receipts (Nos. V. and VI.), belong to Mr J. T.

Irvine, Lichfield, a Fellow of the Society. The documents are in fair preservation, but the handwriting is peculiar and very illegible. They have been deciphered by Mr Gordon, Librarian to the Royal Society, and the translation—a not very difficult task—has been made by us jointly. Little is necessary by way of explanation, as the papers speak for themselves. They illustrate the close connection between Shetland and Bergen, maintained for a lengthened period after the annexation of the islands to Scotland, all seeming to indicate that the severance from Norway was regarded as a temporary and not a permanent arrangement. Nothing certain is known as to the persons concerned. The name Forsell is the equivalent of Firsell or Fraser, a not uncommon name in the district. The parties would appear probably to have been cousins, thus:—

John Forsell,—his son, *Christian Jonson Forsell*.

Donald Forsell,— „ *William Donnellsson Forsell*.

In a deed executed at Reafirth, in the same island of Yell, 10th March 1575, John Firsell of Hascassay, and Robert Firsell of Wassason, appear as witnesses. Both the documents appear to be holograph of the grantor (*“Crysteun Jonson egenn hand,”* i.e., Christian Jonson own hand), and, as simple informal documents, they are in a sense even more interesting than had they been legal instruments drawn up with the usual conventionalities of style.

DEED NO. V.

1. *Transcription.*

Anno 1602. Bekendis ieg Marete Suens doter alt have annamet af Iakop Spens xxviii alna * * uanmal oc an half can smor pu Kristin Daues dotter's wegne.

Men bristes Kristin viij aln uanmal bade for dete ar och saa for nli fior.

2. *Translation.*

Anno 1602. I, Margaret Suen's, daughter, acknowledge to have received of James Spens xxviii ells * * wadmal and an half can butter on Christina Dave's daughter's account.

But there is still due to Christina viii ells wadmal both for this year and also for last year.

DEED No. VI.

1. *Transcription.*

Thette bekendis ieg Vellem Monsøn uisted att ieg er Føerren Spens skøfeldig 9½ daller for en tl smør och beplegher ieg mig att betthalle forne Føerren dee 9½ daller dette thiill kommendes sommer som er dett oc thyll kommendes 1608 thyll otter merre vinnes boerd, setter ieg mynd sedvannelight merke iher vinden vnder som er gffued paa kocke b * * den 18 daag Deesember Anno 1607.

VELLEM MONSØN. 
uisted egen
hand.

2. *Translation.*

By this I, William Monsøn, acknowledge [it] set forth that I am due to Føerren Spens 9½ dollars for a can [1] of butter, and I pledge myself to pay the forenamed Føerren these 9½ dollars this ensuing summer, which is that of the ensuing [year] 1608. For farther confirmation I set my usual mark here found underneath, which is given at * * the 18th day of December in the year 1607.

WILLIAM MONSØN. 
witnessed (my) own
hand.

These two brief receipts, or acknowledgments (1602-1607), are the latest, so far as I am aware, of the documents expressed in the Norse language which have come down to us. It is curious to observe that while the Scottish tongue was by the time in question well established among the natives, some of them thus preferred the use, even for documentary purposes, of the language of their forefathers, practically identical in form with the speech of their kindred in Norway. William Monson (or Manson), the granter of the document of 1607, was, there is little doubt, William Manson of Gairly, who was then Fowle of Unst, and appears frequently in the records of the Lawting, Sheriff, and Justice Courts of the period, and so late as the year 1615.

DEED No. VII.

1. *Transcription.*

Kiendis Jeg Herluff Lauritzon Borger y Bergen oc witterligt gior for alle med dette mit obne breff att epterli Salig Anne Mogensdotter borger scher her sammesteds y syn Velmagt mz god beraadt hue och sind, och mz hendis Slectis, Suogeris och gode venners Raadt och Samticke, haffuer sellt och affhend fra siig oc sine arffuinger, och till Erlic Mand Anders Smidt boendis paa Noderseater y Hellsuig byggun, v merkis Jord y Findeland liggendis wdi for Hillisuig byggun y Hettlandt, renther aarligann x peninge Smór, x str. wadmæl Epther som deris kiøbe breff her hoss liggendis wdi sin mening der om ydermere formøller, Oc epterli for? Anne Monslotters Suoger ved naffn Sinord paa Urim y Haranger, haffuer ombedit oc beffalet miig att ieg willde tale for? Anders Smidt til, om de peninge som endnu resterit paa for? kiøb, och dennom till miig paa hannis wegene anamme, thi hand kunde ike ligge her, och forwagte naar for? Anders Smidt monne hiid komme fra Hetlandt, Och epterli for? Anders Smidt haffuer y got folkis nerverelse worit offuer Regenshab mz miig paa for? Sinords wegen oc goduillige wden widere klammer oc trette betalld den summa som resterit. Saa er alld landskyllde som hand till denne dag skyllidig war, summeledes de peninge som paa samme Jord wdi deres kiøb wloffuett war, ere nu, dett mindste mz dett mieste, allt samme betallde och fornøiede, epther andre handschrifters lydelsee som er bleffuen funden epther for? Anne Monslotters dōdt, som miig ere bleffue offuerantuordis, Thi hiembler ieg oc skoder paa for? Sinord paa Urim, wegne, for? Anders Smidt oc sine arffuigng for? v merkis jord y findelandt, frj oc frellseligue for rett Odals gods att nyde bruge och beholde, med alle den roett och herlighed som for? Sinord eller hannis arffuinger kunde der ndi haffue wdj alle maader, Och schall ieg for? Herloff Lauritzon, were hannis Mandt for alld ydermere tilltalle aff for? Sinord och hannis arffuinger y alle maade. Dette till sandheds stadfestning haffuer ieg underhengt mitt signete neslan dette mitt obne breff, Och vanligenn till buditt disse dannemend til windisbyrdt mz mig att besigle, som er Jon Maen, Anders * * * oc Johan Sandersson. Actum Bergen den 27 Julii 1601.

[Four tags—seals lost.]

2. *Translation.*

I, Herluff Lauritzon, burgess in Bergen, acknowledge and make known to all by this my open letter, that whereas the deceased Anne Mogensdaughter,

burgess here in this same city, in her full health, with well resolved mind and purpose, and with the advice and consent of her family, brother-in-law, and good friends, has sold and transferred from herself and her heirs, and to the honest man Andrew Smith, residing at Noderseater in Hillswick Bay, 5 merks land in Findeland, lying in the foresaid Hillswick Bay in Hetland, of the annual value of 10 pennies butter, 10 pieces wadmél, according to their contract of sale herewith, whereof the terms thereanent more fully show; and whereas the forenamed Anne Monsdaughter's brother-in-law, named Siuord in Urim in Haranger, has requested and commanded me that I should speak with the forenamed Andrew Smith about the money which still remains unpaid under the forenamed contract, and receive the same on his account, because he cannot remain here and wait for the forenamed Andrew Smith's coming here from Hetland; and whereas the foresaid Andrew Smith has, in the presence of good people, paid willingly and without further quarrelling and contention on the foresaid Siuord's behalf, the sum which remained of the accounts with me; therefore, all the land rent which up to this day was due, as also the money which was promised for the same land under their contract, is now, the least with the greatest, all paid and satisfied, according to the sense of other documents, which have been found after the said Anne Monsdotter's death, and have been delivered up to me. Therefore, I cede and convey, on the aforesaid Siuord of Urim's behalf, to the forenamed Andrew Smith and his heirs, the foresaid 5 merks of land in Findeland free and indefeasible, as property in proper Udal right, to enjoy, possess, and hold, with all right and privilege, which the forenamed Siuord or his heirs could have thereto in any way; and I, the forenamed Herloff Lauritzon, shall be his surety for all further demands of the foresaid Siuord and his heirs in every way. For the confirmation of the truth whereof, I have appended my signet underneath this my open letter, and in the usual way have requested these honest men to seal it in testimony along with myself, namely, Jon Moen, Anders and Johan Sandersson. Done at Bergen the 27th July 1601.

[Four tags appended, but seals and signatures, if any, lost.]

I am indebted to Mr Harry Cheyne, W.S., for this very interesting document, which we came upon in examining the old papers in the Charter Chest of the estate of Busta in Shetland. It is a Norwegian document in parchment, executed at Bergen in 1601, testifying to the

sale of a small property in the parish of Northmavine by a deceased residenter in Bergen to an inhabitant of that parish. The property sold, Findeland (The Findlands?), and the dwelling-place of the purchaser, Noderseater (Nithester?), are places still recognised, I am informed, in the neighbourhood of Hillswick, on Hillswick Bay (or Urie Firth), on the southern coast of Northmavine. This paper also illustrates very pointedly the close and long-continued connection with Norway, chiefly through, and in connection with, the town of Bergen.¹

In addition to the gentlemen named who have supplied the various documents and those whose kind assistance I have already acknowledged, I have, in conclusion, to express my obligation to Mr Jón A. Hjaltalin of the University Library, whose intimate acquaintance with the northern languages renders him an invaluable referee in all cases like the present.

APPENDIX.

The following documents have an important bearing upon the preceding papers. Those marked A and B are contemporary translations of original deeds forming an essential part in the progress of title to the Provost's lands of Sumburgh; and that marked C is the formal Scottish instrument by which William Bruce of Sumburgh finally acquired these lands. The words italicised in brackets thus [*Burgess*] are supplied, though not now legible in the documents.

¹ In the year following, 1602, Andrew Gifford of Weddersta, in the neighbouring parish of Delting, pursued an action against James Chalmar in Waiss for four barrels of butter delivered to him to be carried to Bergen "for the payment of the land-meils, dettis, and dewties restand awand be the said Andrew Giffaird to the Lordis of Norway," but which butter, Chalmar, after conveying it to Bergen, sold to clear expenses on the ship. (Court Book of Shetland, General Register House.—See Peterkin's "Notes," Appendix, p. 38.) The "Lords of Norway," here and elsewhere referred to, suggest a curious inquiry, cognate to the present subject, yet remaining to be investigated.

A.

(*Wadset*—KING FREDERICK III. to P. PETERSONE and C. ROSENMEYER, 1661.

Translated by D. Forbes, Edinburgh, 1662).

We Fridrich the third by the grace of God King of Denmark Norway Wandalas and Gothes Duke of Slesvig-Holstein Stormarn and Ditmoers [*hen*] Earle of Oldenburghe and Delmanhorst : Make knowin to all That we have graciouslie wedsett and now by thir present oppin lettres have pandet wedsett and dispoñed from us our successor Kings of Denmark [*and*] Norway, our royal familie, and airs, unto the right honorable Peter Petersone Proveist in our frie and royall residence and staple towne of Kiøbenhavn togither [*with*] Charles Rosemeyer [*Burgess*] and mercheandt of the same brughe to thame thare wyves and airs our goods and land belonging and pertaining to the provestrie of the Dømbe Churche in Barga in norway or as it is called the apostles land goods ; speceallie to the said Peter Petersone for sextein thowsand aught hundredth sevintein rix Dollors 3½ - 6s 4d and till Charles Rosemeyer for achtein thousand two hundredth fowrthie rix Dollors and nyn 2s 1d whyche maks and extends to in alle [*Thirty-five*] thousand sextie sex rix Dollors and ane half 16s : the Dollor being compted to 96 schilling Dense the valew wherof they have justlie and fully [*paid and accounted for*]. Which before written Apostles goods and land, with all farms and lands * * * * * belonging thereto togither with their properties * * * * * and rent, [*dwelling-places*], (so far as we ar informed). Item, service work hunting and all other prerogatives and pertinent rents and teinds aither to land or of seas ; Item free customes fuir and unfuir incoming rents and right pertaining thairto whersomever of water or streams, come land middowes woods marisches ground moss and muir fishe waters pastorage of the hie fields and waters weat and dry, and what other belongs yrto, nothing in noways excepted, what now presentlie pertains or what formerlie hath pertained thairto or justly ought to belong yrto, everie way and maner so fare as the right hono!! oluff Rosenkrantz of Egholme and his full power Offue Jansone who hade the governing and farme of it now to the forsaied peter petersone and Charles Rosemeyer thair wyves and airs to be injoyed used beholden and posest be them or any whome-soever they shall have or appoint for ane pandt and Weddsett to be used and injoyed as said is without any further compt or debursement quytt and frie begining from Philip Jacobis day last in this present year 1661 and so furthe to continuè ay and while the same be redeemed again by us or our

successor Kings of Denmark or Royall familie or airs for the fairsaid summa for the whiche it is now pandet and weddsett : And the fairsaid apostles land goods other pertinent goods belonging yrto disposed to thame and thair airs with the lyk conditione and chose as is granted to thame to agree and dispoone to vthers either in haill or in pairt to enjoy [with] the same conditione ; So alwayes the fairsaid peter petersone and Charles Rosemeyer and thair airs, thair full power or choss w^t whom they agree, shall hold the tenents duelling upone the fairsaid weddsett goods with Law and Justice, and to answer and defend thame from all wrong, that nou of thame be unjustly wronged with new burdens no maner of way by ony that will undertake any new Inpositione upone thame against the laws and Charter¹ rights of the said Lands : Item they thair airs and successours may enjoy or lett enjoy the said goods and pertinents belonging yrto lawfullie : and when the said rowmes and houses or pairts yrof decay and ly waist, the same to be repaired by thame upone a reasonable way, untill the former possessor bairns or next airs be capable or known to be capable, as best information can be given and posset be thame according to the lawes and custome of the Land : nather shall it be granted that any propertie of the fairsaid goods or rowmes or houses belonging yrto shalbe deminischd or taken away in no maner of wayes untill the said weddsett goods be redeemed again be us or our successor Kings of Denmark and Norway or our airs : and the tennants belonging yrto ar to be subject and obedient to worke and land service on a reasonable maner according to the lawes and custome of Norway ar oblidged thairto, To the fairsaid Peter Petersone Charles Rosemeyer or to those unto whome they * * * * and if they find any of the fairsaid Land goods as above wrettin takin away, in that caise they ar to repaire thameselves according to Law and Justice, In lyk maner if they find any to have imposed any burden or ruyne on the tennants, and if reveilled to thame being against thair rental right, In that caise to assist the tenant by Justice to be repaired and restored to that whiche they unjustlie were forced to give out, That they may be confirmed and able to subsist : And the fairsaid weddsett goods als above wrettin to be enjoyed and used by thame or vtheris in thair name to their best profite and advantage in all maner of way als they can : Item in the mean tyme shall non of thame be oblidged no tyme for horsse service or no vther maner of thing nowayes untill and so long this be redeemed again, nather oblidged to give thairout any stockfishe or by

¹ This should be "Rental Book" (*Jordtæbog*), in which the tenants' rights were entered.

ony shippes to make any change or alteratione untill the said goods be redeemed again : and what former levicing of men is in use by the forsaid goods shall continue in its full power now als in former tyme : Als lykwayes the taxatione to be payed according as it hath been or shallbe Imposed heirefter, and the foirsaid Peter Petersone and Charles Rosemeyer their wyves and aires and [any one to whom they will intrust it, may levy and receive] the taxation and pay it at Bergen's House, and inspect that it be righteously proceedit. And if so be we be myndet to nobilitate and dispone the said apostles land goods properlie we will first graciouslie offer the same to the Peter Petersone and Charles Rosenmeyer and thair aires to enjoy it before any vther. Bot if so be we or our successor Kings of Denmark and Norway our royall familie or aires be pleased graciouslie to redeem the foirsaid weddsett goods in again We will make lawfull warning and premonitioneane whole year before the tyme, and then the same weddsett and pandet goods to returne to us¹ upone the payment of the same summa wherfor it wes pandet. In the mean tyme all we and ilk ou of us Peter Petersone Charles Rosenmeyer thair wyves and aires or persons unto whom they weddset or [grant] full power, oblige us That they attempt or do nothing in contrare of the above wrettin no maner of way under the pain of our maiesties highest displeaser Given out upone o' Royall residence in Kiobenhauen the 25 of July anno 1661 vnder our Signet.

FRIDRICK.

B.

(Assignment—P. PETERSONE and C. ROSENMEYER to N. and P. HANSONE, 1661.)

We wnderwreatin and subscryuand Peter Petersone Provost in Kiobenhauen and Charles Rosenmeyer burges and mercheand of the said towne : and by thir presents make knowin to all : That in regaird the Kings ma'ie our gracious souerayne lord hath weddsett and disposed to us and our aires : The provestrie of the Dombe church of Bargan called the apostles land goods, lying in Norway, for Threttie fyve thousand sextie sex rix Dollors and ane half sextein shillings wherin his maiestie hath graciouslie granted us to weddsett, and dispoine to vtheris with the lyk chose and conditione according as is conteneid in his Maies lres of pand and weddsett daitted att Kiobenhauen the 25 of July anno 1661 : Wherefore we be thir presents giues full power to the right respective

¹ The original here contains the words "our heirs and successors," which the translator has omitted.

and understanding men Neils Hansone formerlie Proveist of Helsingore and his loving brother Peter Hansone counsellar of Bergan That they undertake in our name the full charge thair of The provestrie of Bergan Dumbkirks land or apostles Land called, as lykwayes to cans lift and receive the dueitie and rent yrof and make the best advantage of it all maner of way as they can, accordring as is granted to us and compted from Philips day 1661 [and so on ?] for the yearlie usuall [rent]; and [whatsoever under] the contract or agreement betwixt the foirsaid provest Peter Petersone in his owin or his louing brothir of law Charles Rosenmeyers name and what my louing father Peter Petersone Proveist letteth or doeth heirin shal be me, Charles Rosenmeyer and my aires, holden good, unrecalled, and fulfilled, in all maner of way : as lykwayes is granted to ws, To the foirsaid Neils Hansone and his louing brother in law Peter Hansone full and sufficient power to weddsett and dispoine from ws our wyves and aires the said apostels land goods, to any who ar pleased to agree with thame, with the lyke right of weddsett, and all other prerogatives, lyk as our gracious soverayne hath granted and delyuered to thame the originaul letters of weddsett rights as is yrin conteind in all poynts : And what moneyes it shall happin thame to receive in both yair names or what they delyuer to Peter Petersone provost of Kiøbenhavn or to his factor Peter Hansone att Hamburghe shalbe as valide and sufficient as gine we hade receaved it in our owin hands : and we promise and oblidge ws to gine letters and sufficient securitie to euerie on that shall happin to agree in this weddsett and to gine thame consent accordnglie, when it is requyred of us : In witnes heirof that this is done without any fraud or guyll, and to be kept and fulfilled without any recalling, We have subseruyed the same with our owin hands and heirto fixed our signets att Kiøbenhavn the [5th] of August anno [1661].

PEDER PEDERSONE.

CHARLES ROSENMEYER.

my hand

That this is the right coppie of the originale In Witnes heirof we Respective Provost and Counsall of Bargaue upone * * * have caused fix thair towns seall.

In uberiorẽ testificationem subscribo

JOHANNES THOMÆUS RÛS, Notar : public :

Bergensis insignia

This to be the tren translation of the above wreattin origeanaell coppies I heir wreattin and subservyand testifie and approof. Att Edr 1 Julii 1662.

DAVID FORBES, Translator.

These contemporary translations of two of the principal documents in this series of conveyancing preserved in the Sumburgh Charter Chest, though not perhaps altogether accurate renderings, are really the title understood and founded upon at the time, rather than their Danish originals. The whole terms, clauses, and conditions are an interesting study from every point of view. In the order of title, the Deed No. I. printed in the text (see *ante*) conveying the lands from Pederson and Rosemeyer to Captain Middleton, confirmed by the king, properly comes in here. Strange to say, that document is not founded upon or referred to in the Scotch conveyance which follows, from Captain Middleton to William Bruce of Sumburgh. Middleton, in that conveyance, derives his title from a deed in his favour dated 20th October 1661 by Neils Hansen and Peder Hansen, as commissioners for Pedersen and Rosemeyer under the commission to them of date 5th August 1661, printed above (Appendix B). There is no translation preserved of this deed in Middleton's favour by the two commissioners, but its terms are very similar to those of the conveyance to him by Pederson and Rosemeyer (Deed No. I. in the text) of the same date. There is, therefore, no occasion for introducing it here.

C.

(CONTRACT BETWEEN WILLIAM BRUCE OF SUMBURGH AND
CAPTAIN LAWRENCE MIDDLETON, 1663.)

At Skalloway banks The sixteenth day of Feb, the yeire of God [j^m vi^{ty} sixty] thrie yeires The qlk Day it is condescendit upon contractit and finallie [ended] Betuixt William Bruce of Soumbroche on the ane part and Lient. [Law]-rence Midletoun and Maria Consta[ney] M Jan Mander his spous for herself on the other part In maner forme and effect as after followes That is to say flossameikle as his Majestie fridericus the third now present King of Denmark and Noraway &c. Hes by his Royall Gift and Letters of Wodsett of date at Koibenhaven the twintie fyve of July J^m vj c/ sixtie ane yeires wadsettet sauld and Disposned to the honourable Peter Petersone Provost of Koibenhaven Charles Rosemeier Burges and Merchand of the same

Citie and to their wyfes bairns aires and assignayes for the s^{ou}me of Threttie fyve Thousand sixtie six and one half silver Dollers with sixteen Schillings Dense money All and Hail That part of his Majesties Lands and Landrent Called and Designed in the said Gift and Letters of Wodsett The Lands belonging to the Provostrie or Doom-Church of Bergan or utherwayes called and Desiguit the Apostles Land-Goods Under [wadsett] and Redeemable fra the said Peter Petersone Charles Rosemeier and their * * * for pay^t againe to them by his said Majestie of Denmark and Noraway &c. of [the said] s^{ou}me of 35066½ rex Dollars 16^s. Dense money and also his said M^{at}ie of Denmark and Noraway &c. hes Royallie gra[n]tit That if the here^{be} right and Intrese of the saids Lands and Landrent Be at any tyme heirefter sauld and annalied from the Royal Crowne of Denmark and Noraway In that caise the said Peter Petersone [and] Charles Rosenmeier sall be first preferred to the acqyreing and having thei^rof before any others of his said M^{at}ies subjects as at maire length is conte[n]it in the said Letter of Gift of the Date abovewritten And Lykas forsameikle as the said Peter Petersone and Charles Rosemeier by their Lettres and Resignation assignation translation and full powar and co[m]mission of the Date at Kiobenhaven the fyfth day of August and yeire of God 1661 yeires Have Resignit assignit translated and transferred All right standing in their persons and competent to them [and] their forsaid^s To have or bruike In and to the Lands of the said Provostrie or Apostles Land Goods whersoever the same lyes To and in favours of Neils Hansen Provost of Helsinure and to Peter Hansen Counsellor of Bergen his brother and hes co[m]mittit to them full power and co[m]mission To sett raise sell Dispose Dilapidat and away pnt to any persone or persones at their pleasure the saids Lands and Landrents or any part [thereof as] they shall think expedient [proryd]ing that whatsoever sall be done by the saids [Niels] Hansen and his said brother thei^ranent sall be as valide to any persone or persones [who] shall Transact with or take right from them to all or any part of the forsaid Lands or Landrent as if the said Peter Petersone and Charles Rosemeier were the Doers therof themselves As is all more ample exprest in the said Lettres of Translation and Co[m]mission of the Dait abovewritten Conforme to the tennor of the quhilks Lettres of Assignation and Translation full power and Co[m]mission The said Neills and Peter Hansen his brother in name and behalf of the said Peter Petersone and Charles Rosemeier and conforme to the tennor of the Co[m]mission grantit to them to that effect of the dait abonewritten For the s^ume of one Thousand and fiftie rex silver Dollers

payede and delyvered to them by the said Captaine Livetenant Lawrence Middleton and his said spous Have sauld Wadsett Disposed Transferred and Assignit To Them their aires Successors and assignayes whatsoever That part of the Lands belonging to the Provestrie of the Doom-Church of Bergen which Lyes in Zetland called usuallie the Provost Lands or Apostles goods there or the Umbooth goods of Soumbroche which payes yeirle according to the usuall Rentall and Use a payment of fyve barrell of butter, and [ten pafcks of wodmell As their Lettres [of] Wadsett Translation and assignation To the said [Captaine] Livetenant and his said spous thereanent of the Dait at Bergen the twintie day of October and yeire of God 1661 yeires in the self maire fullie reports And [* * *] the said Captane Livetenant and [his] said spous by vertew of the forsaid originall [Gift] and Letter of Wodsett Grantit by his said Majestie of Denmark &c. to the said P[eter Petersone] and Charles Rosemeier and also by vertew and powar of the full powar [and Commission granted by] the said Peter and Charles To the said Neills and Peter Hansens * * * * *
 * * * * * assignation and Translation grantit by them to [Captaine Livetenant Middleton and his] said spous Having right to dispose upon that par[t] * * * * * within Zetland and to the yeirle Landrent in use to be * * * * * of Denmark as said is And Lykwise having powar by * * * * * Gifts and [Assign]ations Translations * * * * *
 * * * * * and * * * the same at their pleasure for the causes after specifeit The said Captane Livetenant and his said spous with mutuall and uniforme consent and assent of others By the tenor of this present contract Bind and oblige them their aires and Successors to sell Wodsett assigne Transfer and Dispone Lykas they both with mutuall and uniforme consent and assent forsaid And the said Captane Livetenant takand burdeen in and upon him for his said spous for her Intress By thir presents Wodsetts sells Dispones and assignes to the said William Bruce and to his aires Successors and assignayes for ever The forsaid Lands of the said Provostrie together with the Landrent theirow forsaid lyand within Zetland And transfers all right and title thereto now standing in the persons of the said Captaine Livetenant and his said spous Either by vertew of the abone mentionat Lettres of Wodsett and Royall Gift grantit by his said Majestie of Denmark &c. to the said Peter Petersone and Charles Rosemeier or by the Lettres of Assignation full powar and Commission Grantit by them to the said Neills and Peter Hansens or yet by the right of Wodsett assignation and Translation Grantit by the said Neills and Peter Hansons To him

and his said spous, To and in the special favours of the said William Bruce and his forsaid and Surrogats and Substituts him and them in their full right and place therof for ever During the none Redemption of the same in maner abone and after exprest And in Coroboration and fortification of the forsaid Lettres of Assignation Transference Wodsett and Translation abone exprest The Captane Livetenant and his said spous and their forsaid Bind and oblise them by thir presentis To give up and Delyver to the said William Bruce and his forsaid The extracts of the abone specifeit Lettres of Wodsett and Royall Gift grantit by his said Majestie of Denmark and of the Letters of Transference and Comission grantit by the said Peter Petersone and Charles Rosemeier Together with the Extract of the Letters of Wodsett assignation and Transference grantit by the said Neills and Peter Hansens to the said Captane Livetenant and his said spous all under the Towne seille and cler * * subscription of Bergan To be keipit and used by the said William Bruce as his owen right * * and securities And to be interpret in favours of him and his forsaid to all Intents and purposes for his securitie in the Lands and Landrent of the said provestrie Sicklyke * * * als fullie and frielie as they were competent before the makeing And granting heirof in the persones of the said Captane Liev^t and his said spous or their forsaid in all tyme heirafter comeing For the quhilk caus The said William Bruce by the tenor of this present Contract Binds and oblisses him and his aires Executors assignayes Successors to him in his Lands and heretages and Intrrometters with his goods and geare qtsomever To thankfullie content pay and delyver to the said Captane Liev^t Lawrence Midletoun his said spous and to their aires executors and assignayes All and hail the sume and number of ane thousand and fiftie rex Silver dollers [in] maner and [at] the termes aftermentionat viz: the sume of ane hundreth seventie and * * rex dollers [at] the terme of Quhitisonday nixtocum and the sume of ane hundreth * * * * at Mertinmass Therafter, with fiftie rex Dollers incaise of faillie for * * * * to pay the soume of * * * hundreth rex Dollers and fiftie * * * * j^m/vjc/ sixtie foure yeires [and] also to pay the lyke soume of * * * * rex Dollers in full [and comp]leit payt of the said soume of * * * * at the terme of Mertinmass j^m/vjc/ sixtie fyve yeires together [with] the sume of ane hundreth rex Dollers Incaise of faillie for either of the said two last termes Together with Dew a[nnual] rent for the severall & [respective?] soumes of money above specefeit the termes of payment being always come and bygone swa lang as the same sail thereafter

remaine unpaid to the said Captane Leiv⁴ his said spous and their forsaids
 conforme to the Intention of this present Contract and also the said William
 Bruce by and attour the said sume of ane Thousand and fiftie rex Dollers to
 be payed by him in maner above exprest Binds and obliesses him and his for-
 saids To make subscriye and Delyver To George Midlton father to the said
 Captane Lawrence Midlton and to Margarat Tyrie his spous and the langest
 liveand of them Twa ane valide right and Securitie of All and hail his Ten
 and half merk land of the Lands belonging to the said provostrie with the
 houses biggings and pertinents therof lyand in Hellines To be bruikd by
 them and the Langest Liveand of them twa in Lyfrent only During all the
 dayes of their Lyfetymes At least to be bruikd by them so long as the said
 William Bruce and his forsaide shall Injoy the right and wodsett of the
 abovementionat provost Lands * * * * By vertew of the rights therof
 now grantit to them by the said Captane Liev⁴ and his said spous Lykas also
 the said William Bruce Binds and obliesses him and his abonespecifeit To make
 perfect subscriye and delyver upon demand To the said Captane Liev⁴ and his
 said spous and to their aires successors and assignes q'somever alwise respecting
 the provisions underwreatten Ane valide right and securitie extendit in ample
 forme Wherby he shall Infeft and Sease them in all and hail his seventein
 merkland Six pennies the merk in Levanwick and ane merkland in Hoiswick
 Eight pennies the merk with the houses Biggings and pertinents therof And
 shall enter and put them in the peaceable possession of the same [(Marginal
 addition)—and the said George Midltoun and his said spous in [peas]able
 poss[ession] * * *] lands * * * *] at the Feast and terme of
 Quhytsunday nixtocum in this Instant yeire provyding alwayes lykas it is
 specialie prof[ydit] by express condition heiroy That quhenver It shall happen
 his said Majestie the [King of Denmark, &c.] or his Royall aires and successors
 To caus make good and thankful pay^t To the said [William Bruce] or to his
 aires successors and assignayes of the said sume of Ane Thousand and fiftie
 Rex Dollers [for] Redeeming againe of the lands belonging to the forsaide pro-
 vostrie lyand [within Zetland * * *] William Bruce and his forsaids in
 that caise to returne againe in the * * * * before the making and
 granting heiroy they have been * * lands by and within [Zetland * *]
 of the usuall rentale Dewtie theiroy above specifeit * * his said majestie and his
 Royall aires and successors as in former tynes Then and in that caise The
 said Captane Liev⁴ Lawrence Midltoun his said spous their aires successors
 and assignayes qtsomever sall be holden and astrictit bunden and obleist Lykas

By thir presents they bind and obliiss them That they shall not onlie caus the said George Midletoun and his said spous If both or either of them sall then happen to be on lyfe To Renunce and give over their said Lyfrent right of the saids Lands of Hellines and enter the said William Bruce and his forsaid againe to the possession of the same with the housses and pertinents therof But also they and their forsaid Incalse of the forsaid Redemption sall be holden and astricted and Doe heirby bind and obliiss themselves and their forsaid To Dimitt Give over and Renunce Their right and possession which is now to be made and given to them by the said William Bruce of all and haill The said seventeen merkland in Levanwick and ane merkland in Hoiswick againe in favours of him and his forsaid [*and to*] put him and them in the peaceable possession therof at the first Qtsunday or Mertinmas [* *] after the payt of the said sume of Ane Thousand and fiftie rex Dollers by his said [*Majestie*] of Denmark or his Royall aires and successors To the said William Bruce and his forsaid for the Redeeming of the forsaid Lands of the said Provostrie And for both the saide parties their better securitie anent the premisses they bind and obliiss them and their forsaid *hinc inde* to uthers To renew and Reiterat this presen tcontract [*and*] condition to uthers sa often as they sall be Lawfullie requyred therto before * * and Witnesses as effeires [*aye and*] quhill they find themselves [*each and*] other of them sufficientlie and fullie secured anent the conditions therof And to * * the * * tennor clauses and conditions of the same to uther But prorogation fraud [*or guyle*] and that under the * * and penaltie of Thrie hundreth and fiftie rex Dollers To be payed by the parties breaker and faillier To the parties keepar and observer As for coast skaith and Damage By and attour the fulfilling of the haill promisses to uthers as is above specefeit in all poynts And for the maire secure [* * *thereof*] the said parties Consent that thir presents may be Iusert and Registrat in the bookes of Counsell and Session or Shereffe Court bookes of Orkney and Zetland To have the strength of ane act and Decreit of the Judges therof interponed heirto That Lettres and Executorialis of Horneing poynding and uther needfull upon ane simple charge of Ten dayes allenarie may be direct heirupon in forme as effeires And for Registration hereof they make and constitut * * * * * Their Lawfull prois to compeire and consent firme and stable halding and for to halde Witness This present Contract written in the bodie by Gilbert Neven of Scousbrugh Is subscrivit by the said parties Day moneth yeire and place abone specefeit Before thir Witnesses Lawrence Umphray of Sand Thomas Cheyne of

Walee Johne Umphray of Asta Mr Gilbert Hendrie of Quhitness and the said Gilbert Neven wreatter heirof.

WILLIAM BRUCE.
LOWRENCE MIDDILTOUN.
MARIA CONSTANSY MAN
MANDER.
LAWRENCE UMPHRAY Witness
THOMAS CHEYNE Witness
JOHAN UMPHRAY Witness
GILB : HENDRIE Witness
GILB : NEVEN Witness.

Besides the various deeds above from the charter chest of Sumburgh, another interesting document from the same quarter, the DECRET OF SPULZIE by the Lords of Council and Session against Patrick Stewart, Earl of Orkney, 4th October 1609, at the instance of William Bruce, first of Symbister and Sumburgh, for a raid upon the House of Sumburgh, is printed in the "Archæologia Scotica," vol. iv. pp. 385, 389.

III.

NOTES ON BRONZE WEAPONS AND OTHER REMAINS FOUND NEAR POOLEWE, ROSS-SHIRE. By WILLIAM JOLLY, F.S.A. Scot., H.M. INSPECTOR OF SCHOOLS, INVERNESS.

The shores of the beautiful Loch Maree and Loch Ewe seem to have been long inhabited both in prehistoric and historic times, as proved by the numerous finds of articles of human workmanship and use obtained there at different times. These have occurred in various parts, but chiefly round the lower end of Loch Maree and along the banks of the River Ewe, which drains the lake into Loch Ewe, and at the mouth of which stands the village of Poolewe. Here an ancient sea terrace skirts both sides of the Loch Ewe and runs up along the river to Loch Maree. On this terrace, and on some of the enclosing eminences above it, certain interesting and important discoveries have lately been made, which are described in this paper. The most of these are now in the possession of

Sir Kenneth Mackenzie of Gairloch, who is greatly interested, not only in all matters connected with the welfare of the present inhabitants of the district, but in all evidences of the life and habits of its ancient peoples, and has kindly lent the objects for exhibition and description. It is to be hoped that he will complete his good offices by presenting the whole, or at least the rarer specimens, to the Society's Museum.

(1.) In May 1877, several Bronzes were come upon, on the high ground overlooking the River Ewe on the north side, some distance beyond the Public School, by a labourer, named Hector M'Iver, while engaged in digging peats. They were found 6 feet below the surface, all in one spot. They are as follows :—

No. 1. A bronze Socketed Celt, with loop, $4\frac{1}{2}$ inches long, $2\frac{3}{4}$ inches across the cutting face; socket circular, $1\frac{1}{4}$ inch in diameter; exterior plain. It is interesting as retaining part of the handle in the socket.

No. 2. A bronze Socketed Celt, with loop, $4\frac{1}{2}$ inches long, $2\frac{1}{4}$ inches across cutting face. The socket is circular, and is $1\frac{1}{2}$ inch in diameter. The exterior is ornamented on the sides by three perpendicular lines, parallel to each other and terminating in circles.

No. 3. A fragment of a bronze Socketed Celt, consisting of part of the cutting face only.

No. 4. A similar, but larger, fragment.

No. 5. A small bronze Socketed Celt, with loop, $2\frac{1}{4}$ inches in length, $1\frac{1}{2}$ inch across the cutting face, which is entire. The socketed part is broken, and the whole of one side is wanting.

No. 6. is a hollow Ring of bronze, almost 2 inches in diameter, and $1\frac{1}{2}$ inch internally. It is pierced by a roughly-cut hole, about $\frac{1}{4}$ inch long and $\frac{1}{8}$ inch wide. Use unknown.

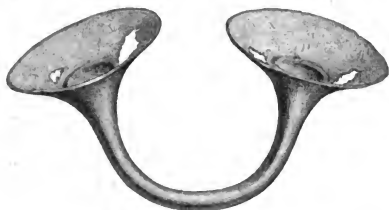
No. 7. A Ring of bronze, T-shaped in cross section, of $3\frac{1}{4}$ inches external and $2\frac{1}{2}$ inches internal diameter. This is of the usual form of cauldron rings, and, if it belonged to a cauldron, the bronzes were probably in it.

Another Bronze Ring similar to these was found in peat at the same place, and is now in the possession of Mr M'Iver, the discoverer of the find.

No. 8. A Penannular Ring of bronze with expanded ends. The ring

is solid, $\frac{3}{8}$ ths of an inch thick, slightly flattened, opening to $2\frac{1}{4}$ inches wide, and terminating in circular hollow trumpet-shaped ends 2 inches in diameter. The type is rare in Scotland, but common in Ireland. No specimen exists in the National Museum, and it is hoped that Sir Kenneth will deposit this one there, as the sole example of its type.

(2.) On the other or south side of the River Ewe, the sea terrace becomes a broad flat plain, chiefly covered with moss 5 or 6 feet deep, formerly more or less wooded. On this flat, which was then used as a



No. 8. Penannular Ring of Bronze ($\frac{1}{2}$).

common, a large market was held for generations, known as the Feil Judha, or Ewe Market, so called from the river near which it took place, not from the animal. This was frequented by the people of the neighbouring region, and very largely by the Lewsmen, as being then the nearest and most convenient spot in which to dispose of their cattle and other produce on the mainland, taking back other articles for consumption. The last of these markets was held so far back as 160 years ago, when it is said that the Lewsmen, while returning home in the usual open boats of the West Coast, were overtaken by a violent storm in the Minch, and all or most of them lost. Traces of this old market have frequently turned up while cutting peats, in the form of bundles of *cabors*, or sticks tied up with withes, as brought from the wood ready for exportation; moulds of some fatty substance, either butter or tallow; and a rounded block of wood 14 inches in diameter, found ten or twelve years ago, probably

prepared for being converted into one of the wooden bickers or plates very common in the Highlands fifty years ago.¹

Near the site of this market, bronze weapons have been found ; whether connected with the market or not, or more probably with the same people as forged the other bronzes found on the opposite side of the Ewe, and elsewhere in the district, is a question.

Here a bronze Flanged Celt was lately found, $5\frac{1}{2}$ inches long, narrow for its length, of the usual form, but considerably worn.

In May last, a long spear was obtained about 3 feet deep in the moss, at a point opposite the site of the large bronze find got on the north side of the river. It is 14 inches long, $1\frac{1}{2}$ inches broad at the base, expanding to $1\frac{1}{2}$ inch, 1 inch upwards, and gradually tapering thence to the point which is pointed and perfect. The double edges are fine and sharp, and not indented in any way, showing that the weapon had been very little if at all used. A thicker ridge runs along the centre of the blade on both sides, gently sloping to the edges. At the base are two opposite openings in the blade close to the socket. It has been cast of the same bronze as the others.

(3.) Near the mansion of Inverewe, close by Poolewe, on the north side of Loch Ewe, a small bronze spear head was found sometime ago while cutting peats, some 3 feet below the surface. It is $3\frac{3}{4}$ inches long, $\frac{3}{4}$ ths of an inch broad at the bladed head, which is $1\frac{1}{4}$ inch long, and tapering to a point that has been blunted. Below this it forms a hollow tapering cylinder for a wooden handle, with an eyelet on each side, 1 inch from the base. It is in the possession of Mr O. H. Mackenzie of Inverewe. The following year a stag's horn was found almost at the same spot.

(4.) A Stone Celt was found at Cove, near Rhu Ruadh, a cape that forms the western entrance to Loch Ewe. It consists, perhaps, of some

¹ For the above particulars regarding the Ewe Market, I am indebted to Mr Mackintosh, Poolewe, Postmaster, there. The date of the last market was fixed by the fact that an old man named Finlay Maclellan, who died fifty-four years ago, at the reputed age of 109, and whose grandchildren are still living at Poolewe, was born on the very day of the last market.

variety of trap, polished. It is $4\frac{1}{2}$ by $2\frac{3}{4}$ inches, oval in cross section. It is a common form.

(5.) A Spear head was found near Talladale, on the south side of Loch Maree, near where the present handsome hotel stands. It is of the ordinary type, $5\frac{1}{4}$ inches long, socket $1\frac{1}{2}$ inch, blade $3\frac{3}{4}$ inches long, $1\frac{1}{2}$ inch wide at widest part, which is within $\frac{1}{2}$ an inch of the base. The socket has two rivet holes broken. The bronze is heavier and harder than that of the others, and is evidently of a different amalgam.

The neighbourhood of Poolewe appears to be unusually rich in ancient remains, as many other things have been obtained there at different times, and in the large and fertile island of Eilan Ewe, which lies in the middle of Loch Ewe. The district also shows abundant evidences of prehistoric habitation, in the shape of numerous examples of the usual hut circles, in two of which, near Tunnag, between Poolewe and Aultbea, some steatite whorls, ashes, and other remains were found in trenching, an admirable example of these circles, with unusually high and perfect walls standing on a grassy eminence to the east of the road between Poolewe and Tunnag; and also in the common artificial islands, one of which exists in Loch Cairnsery, between Poolewe and the wild Fionn Loch. It is to be hoped that a more careful and systematic search for ancient remains will be made in this old inhabited region.

IV.

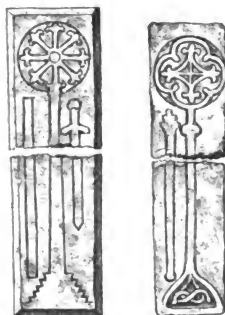
NOTE ON TWO SCULPTURED SEPULCHRAL SLABS IN OLD PENTLAND CHURCHYARD. By THOMAS ARNOLD, CORR. MEM. S.A. SCOT.

I forward for exhibition to the Society a tracing of two sepulchral slabs in the old churchyard at Pentland, near Edinburgh.

The sketch from which this tracing was taken was made some twenty-three years ago, before I left Edinburgh to practise my profession in London. On my way to Roslin I turned aside to see if there was anything of interest in the old churchyard. I soon saw that the raised grassy mound covered the ruins of a church, and that the smaller mound eastward indi-

cated the site of the chancel. On the site of the chancel there was an unusually flat piece of turf, whose square outline suggested that it grew over some stone slabs. Assisted by my brother, who was with me, I loosened the turf all round the edge of the hidden slabs, and after some trouble we unrolled the grassy cover which had for ages protected these memorials. The stones were discovered clean and sharp; and, excepting the damage received by the original destruction of the church, quite uninjured. Some vaulting or other heavy stone-work of the chancel had fallen on and broken the two slabs nearly in the middle. These slabs had not been seen for centuries in all probability; the closely-adhering and

old matted turf showed the growth of many generations. After sketching the slabs we replaced the turf covering. I do not know if any one has since re-discovered these interesting remains of mediæval art. After leaving Edinburgh I had forgotten all about Pentland Churchyard till I came by chance on the sketch referred to; and, thinking that it might be of interest to your Society, and knowing how desirable it is to protect such works, I resolved to communicate this letter and sketch.



Sculptured Slabs in the Chancel of
Old Pentland Church.

Both of the slabs belong to the middle period of Scottish Gothic art, say about the beginning of the fourteenth

century. The details of the design are not sufficient to indicate the date with greater accuracy, as these designs were for a long period very general all over the country. You will see in "Characteristics of the Architecture of the Western Isles and Mainland of Scotland" an outline drawing of a slab from St Mary's, Culross, almost identical with the cross on the left in the sketch. There seems to me some slight reminiscence of the crosses

in the sculptured stones in the Calvary or mount on which the cross on the right-hand slab is set,—too slight, probably, to merit notice.

I shall be glad if any member could complete this notice by furnishing some historical notes of the church, or offer some suggestion as to what mighty men of old the sculptured stones covered.

V.

NOTES ON THE CONTENTS OF TWO VIKING GRAVES IN ISLAY,
DISCOVERED BY WILLIAM CAMPBELL, ESQ., OF BALLINABY;
WITH NOTICES OF THE BURIAL CUSTOMS OF THE NORSE SEAKINGS,
AS RECORDED IN THE SAGAS AND ILLUSTRATED BY
THEIR GRAVE-MOUNDS IN NORWAY AND IN SCOTLAND. BY
JOSEPH ANDERSON, ASSISTANT SECRETARY, AND KEEPER OF THE MUSEUM.

The contents of the two graves now to be described were discovered by William Campbell, Esq., of Ballinaby, in the sandy links at Ballinaby, in the island of Islay, in August 1878. I heard of the discovery in September through Dr Hunter; and recognising it from his description as a deposit of the heathen Viking time, I wrote to Mr Campbell requesting him to entrust the articles to me for description—a request with which he courteously complied by bringing them to Edinburgh and ultimately presenting them to the Museum. Mr Campbell states that the discovery was made in consequence of the drifting of the sand showing a deposit of rust on the surface; and on digging to the depth of about 15 inches he found two skeletons a little apart with their heads towards the east. A line of stones on edge formed a sort of enclosure round each of the skeletons. The other contents of the graves were as follows:—

GRAVE NO. I.

1. An iron sword in its sheath.
2. Iron boss of a shield, with its handle attached.
3. Small scabbard end, or mounting of the point of a quiver.
4. Iron spear-head and the ferrule of its shaft.

5. Two axe-heads of iron.
6. Pair of iron pincers or forge-tongs.
7. Iron head of a small adze.
8. Iron head of a smith's hammer.
9. The bow-handle of a large iron pot and portions of sheet-iron which may have been parts of the pot.
10. Portions of bands formed of iron wires laid side by side which may have been parts of a helmet of the Viking form.

GRAVE No. II.

1. Pair of tortoise or bowl-shaped brooches, ornamented with bands of plaited silver wire, and studs (most probably of coloured glass) now gone.
2. The brass spring-pins of the two brooches.
3. Portions of three double discs of thin bronze or copper, plated with silver, connected in pairs by a band about an inch wide, and ornamented with circles of bosses and borders of *repoussé* work.
4. Silver hair-pin with globular head ornamented with filigree work, and furnished with a ring of wire fastened by a peculiar twisting of one end round the other.
5. Silver chain of fine wire, knitted as a hollow tube, in a manner somewhat similar to what is called Trichinopoly work.
6. Ladle of thin beaten bronze, $17\frac{1}{2}$ inches in length.
7. Hemispherical lump of black glass, in shape resembling the end of a bottle, and having the convex side rubbed and striated by use.
8. Small beads of coloured glass.
9. Large beads of coloured glass, enamelled on the surface with patterns in different colours.

It is evident from the nature of the two groups of objects thus associated with the two skeletons, that No. I. was the grave of a man, and No. II. that of a woman.

It becomes also apparent on further examination that the time and character of these burials are capable of being defined with a precision

and certainly very rarely attainable with undated burials in Scotland. For instance, on a general comparison of these two groups of objects with other groups of objects obtained from early graves in this country, it is seen that no similar groups were ever obtained from graves of Celtic origin. But a similar comparison shows that such groups of objects are the constant accompaniments of burials of the heathen Viking time in Norway,¹ and that there is nothing in either of these two groups, although found in Scotland, which might not have been found in Norway. Still further examination of the records of sepulchral deposits shows that when these groups of relics do occur in Scotland they always have been found in districts that were occupied or frequented by the Vikings.² A closer examination still will reveal the fact that the forms of the objects, such as the sword, the shield-boss, the scabbard-point, &c., belong exclusively to the last period of paganism in Norway or the heathen Viking time—a period which ranges from about the beginning of the eighth to the close of the tenth century.

It may be convenient for the detailed description of the objects to consider them under the three divisions of implements, weapons, and ornaments.

The implements form the most remarkable group of the three. Those found in the man's grave are the two axe-heads (figs. 1 and 2), which are both weapons and tools; a pair of forge-tongs of iron (fig. 3) 12 inches in length; the iron head of an adze (fig. 4) 5 inches long; an iron hammer head (fig. 5) $4\frac{1}{2}$ inches long and $1\frac{1}{2}$ inch wide; the bow-handle of a large iron pot (fig. 6), 12 inches in length, broken, but showing the loop at one end; and the broken fragments of the pot itself. We are familiar in this country with implements of stone or bronze in early graves, and their occurrence in connection with heathen burial does not surprise us. But when we find in a grave such a group of implements

¹ See Nicolaysen's "Norske Fornlevninger," *passim*, and also the "Foreningen for Norske Mindesmaerker's Bevaring," *Aarbøger*, 1866-77.

² See "Notes on the Relics of the Viking Period of the Northmen in Scotland," illustrated by specimens in the Museum.—*Proceedings*, vol. x. pp. 536-94.

as this—a group of actual tools of iron—scarcely differing in shape and not differing in material from those now in use in our workshops, we instantly



Figs. 1 and 2. Axe-heads of Iron (♂).

realise the presence of a phenomenon at once unusual¹ and suggestive—enabling us vividly to realise how closely the characteristic customs of primeval man may be linked with the arts and culture of modern times.

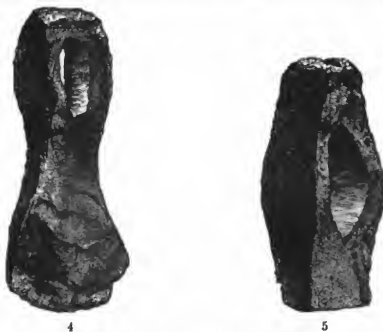


Fig. 3. Forge-Tongs (♂).

Although it seems a strange thing to us that a man should be supposed to have need of his smithy tools in the other world, this feeling was quite

¹ It is unusual in this country, because the graves of our forefathers at that period were the graves of Christians who buried their dead in consecrated ground, with the rites of the Church, and consequently without these accompaniments of pagan burial.

in accordance with the faith that foretold the need of weapons.¹ As the Viking who was laid in the sand-hills of Islay took with him his sword and spear, his axe and shield, so he necessarily required his smithy tools to keep them in repair. This is not a singular case. Nicolaysen gives 23



Figs. 4 and 5. Adze and Hammer ($\frac{1}{2}$).

instances of smithy hammers, and 17 of forge-tongs from the grave-mounds of the Viking time, described by him in Norway. Several of these contained a more or less complete set of smith's tools, including anvils, chisels, files, and wire-drawing implements, as well as hammers and tongs. A

¹ The Asa faith promised a place in Odin's great hall (Valhalla) to all men wounded by arms or slain in battle. Spears supported its ceiling, it was roofed with shields, and coats of mail adorned its benches. It was the perpetual pastime of its inmates to fight and slay each other every day, to be revived again before evening, and to ride home in joyful company to Valhalla, there to be refreshed with the boar's feast, and the mead served by the Valkyriar. Not only was the Viking of the heathen time supposed to take with him to Valhalla all that was buried with him, but whatever he had hid in the earth during his lifetime. It is probably to this belief rather than to the mere notion of temporary concealment for safety that we owe such hoards as those of Skail. For a full description of the Asa faith see Keyser's "Religion of the Northmen," 1854, p. 93 *et seq.*

grave-mound at Thiele in Jutland¹ contained two anvils of different forms, four different kinds of hammers, four varieties of pincers or forge-tongs, two chisels, and two implements for drawing wire, four files, two melting pans, a pair of scales and weights, and a quantity of other implements.

The smith's craft of course held a high place in the estimation of a people wholly devoted to the use of arms, and many of their most famous men were considered as famous for their skill in forging, tempering, and ornamenting weapons as for their prowess in using them.² It is signifi-



Fig. 6. Bow Handle of Iron Pot, one end broken ($\frac{1}{2}$).

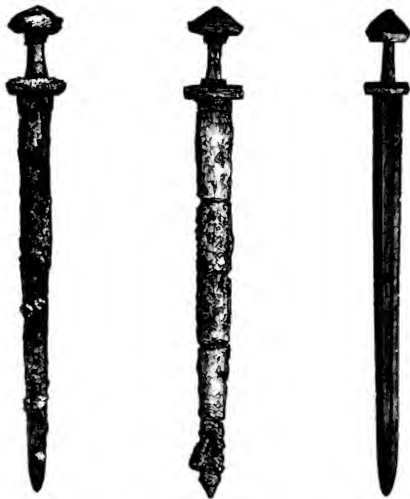
cant of the high estimation in which the craft was held, that the word "smith" was used not only as the common term for expressing dexterity in handicraft, but also as the term by which expression was most fitly given to the higher forms of creative art. Thus while the armourer was literally the weapon-smith, the rune-carver was figuratively the rune-smith, the saga-man the word-smith, the poet the lay-smith, and the Creator of all things the world-smith.

Passing now to the consideration of the group of weapons, it is to be noticed that the sword (fig. 7) is of a very peculiar form, long, broad-

¹ Aarhøger for Nordisk Oldkyndighed og Historie.

² That this fame was not undeserved may be readily inferred from an examination of the splendid sword-hilt exhibited by Professor Macpherson ("Proceedings," vol. xii. pl. xxx.), which though found in the island of Eigg was undoubtedly the work of one of the most cunning of Scandinavian sword-smiths. Four centuries before this time the smith was highly esteemed in Celtic lands for his superior skill, if not also feared for his supernatural powers. St Patrick's famous hymn contains an exorcism against "the craft of idolatry, the spells of women and smiths, and all knowledge that hath defiled the soul of man."

bladed, double-edged, and having a triangular pommel and straight guard, slightly convex on both sides. It measures $36\frac{1}{2}$ inches in length; the blade is $2\frac{3}{4}$ inches wide at the hilt, tapering to $2\frac{1}{2}$ inches in the middle and $1\frac{1}{2}$ inch at the point. The pommel, which is triangular and convex



Viking Swords.

Fig. 7. Found in Islay.

Fig. 8 Found in Orkney.

Fig. 9. Found in Norway.

in outline, is $2\frac{1}{2}$ inches high, 4 inches wide, and $1\frac{1}{2}$ inch thick. The grip, which is covered with leather, is $3\frac{3}{4}$ inches in length. The guard is $4\frac{1}{4}$ inches wide. This particular form of sword belongs to Scandinavia alone, and in Scandinavia it was limited to the last three centuries

of the heathen period. It occurs in almost every grave-mound of this period in Norway (fig. 8), and in such places as the Orkneys (fig. 9), the Hebrides, and those parts of Ireland, Iceland, and Russia¹ known to have been colonised by the Northmen at that period. It is precisely the form shown on the two bronze plaques (figs. 10 and 11) found in a cairn on the island of Oland, which bear the only contemporary representations I know of the sword and spear of the Viking



10



11

Figs. 10 and 11. Bronze Plaques from Oland (actual size).

time.² Although they are evidently grotesques, they represent the helmet, sword, and spear in a realistic manner, which may be accepted as giving the general form of the objects at least. That they do so pretty fairly is evident from comparison with the actual weapons. I show on another diagram four swords—(1) Norwegian, dug up in Norway; (2) Norwegian, from a Viking grave in Ireland; (3) Danish, from a

¹ See "Notes on the Relics of the Viking Period," in the "Proceedings," vol. x. p. 536; Worsaae's "Danes and Northmen in England," pp. 45, 326; "Crania Britannica," vol. ii. pl. lvi.; Wakeman's "Handbook of Irish Antiquities," p. 167; and Kruse's "Necro Livonica," plates 5, 7, 40, for instances of this.

² Kongl. Vitterhets Manadsblad, Stockholm, 1874, and Montelius "Om Lifvet i Sverige under Hednatiden," p. 86.

grave-mound in Denmark ; (4) Swedish, from a grave-mound in Sweden. Their absolute identity of character with the swords now on the table (figs. 7 and 8) from Viking graves in Islay and the Orkneys could not be more strikingly illustrated.

As we possess no Scottish sword of this period, I have placed on another diagram the enlarged figures of three swords which seem to give the form and character of the native weapon. The first of these is of the second century of the Christian era. It is enlarged from a rubbing of the weapon lying by the side of the fallen Caledonians, over whose prostrate bodies the Roman rides in triumph on the left-hand panel of the Legionary Tablet in the Museum. The second is from the sarcophagus of much later date from the churchyard of Govan. It is the sword of the horseman in the central compartment of the sarcophagus, and is thus in the scabbard ; but its striking resemblance to the sword on the Roman stone, and the resemblance of its hilt to that on the stone at Inchbrayock, seem to establish at least the fact that the hilt of the Celtic sword was unlike that of the Scandinavian sword throughout the whole period between the second century of the Christian era and the close of the tenth century. The third example on the diagram is the only representation of a Scottish sword that can be definitely referred to the same period as these Norse swords. It is an enlarged figure of the sword placed in the hand of St Matthew by the Celtic scribe who drew the illuminations to the Book of Deer in the ninth century.¹ Like the Norse sword, it is a long-bladed and round-pointed weapon, but its grip is much longer than the width of the hand, and the points of the guard and cross-piece are prolonged in recurved knobs.

The Viking sword was often over 36 inches in length, and the fact that a whetstone usually accompanies it in the grave-mound indicates that care was taken to keep its edge keen. Looking at the size of the blade and the form of the hilt, so admirably adapted to secure firmness of grip and balance in the poise of the weapon, we can well believe that there

¹ The Book of Deer, edited by John Stuart, LL.D., Spalding Club, 1869, plate vi.

may be truth in some of the many remarkable feats of swordsmanship of which we read in the sagas.¹

The spear from this Islay grave (fig. 12) is of a form common in Norwegian grave-mounds, long, wide-bladed, and strong in the socket.

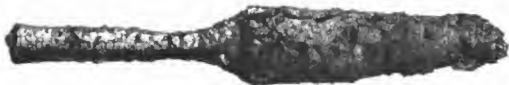


Fig. 12. Spear-head of Iron ($\frac{1}{2}$).

The socket is $4\frac{1}{2}$ inches in length, the blade 2 inches wide at the widest part. The whole length of the spear-head is now only $11\frac{1}{2}$ inches, but about 3 inches of its length is wanting. I have figured along with it what



Fig. 13. Ferrule of Shaft ($\frac{1}{2}$).

appears to have been the ferrule of its shaft (fig. 13). The spear was a favourite weapon of the Vikings, but the form was neither so constant nor so peculiar as that of the sword. Spears occur in the grave-mounds almost as frequently as swords. Nicolaysen records over 200 instances

¹ We can thus the more readily sympathise with the pathetic complaint of the Irish annalist, that "though there were an hundred heads on one neck, and an hundred tongues in each head, and an hundred voices in each tongue, they would fail to tell what the Gael had suffered of injury and oppression from these heathen foreigners; and though numerous were the oft-victorious clans of the many familled Eirinn, though numerous their kings and their champions, yet none was able to give deliverance from the cruelty and wrath of the brutal, ferocious, furious, untamed, implacable hordes, because of the excellence of their polished, heavy, glittering corslets, and their hard, strong, valiant swords, and their well-rivettled long spears, and because of the greatness of their achievements and their deeds, their bravery and valour, their strength and ferocity, and the excess of their thirst and their hunger for the brave, fruitful, nobly-inhabited, full of cataracts, rivers, and bays, pure, smooth-plained, sweet, grassy land of Eirinn.—"War of the Gaedhli with the Gael," Master of the Rolls' Edition, p. 53.

of the sword and over 180 of the spear in the grave-mounds of the Viking time which he has described.

The axes (figs. 1 and 2) are of common Viking forms. Both are broken, but the largest is 6 inches in length, and $4\frac{1}{2}$ inches across the face of the axe. Axes were used by the Vikings both as tools and weapons. Perhaps the most common Viking form is that exemplified in the specimen now on the table from Lamaness, Sanday, Orkney. One exactly like it, with the handle still in it, was found in a grave-mound at Lyngdal, and is figured in the Norwegian Society's "Annual" for 1871.

The shield boss (fig. 14) is a most interesting relic, because it shows what has never before been seen in this country, the mode of attachment of the boss and handle through the wood of the shield. The boss is of iron, conical, and flat on the top. It measures $3\frac{3}{4}$ inches in diameter at the base, and $3\frac{1}{2}$ inches high, the flattened top being about half an inch in diameter. The handle is of bronze, is $7\frac{1}{4}$ inches long, terminating at either end in ornamental circular expansions. It is ornamented with engraved lines, forming a reticulated pattern (see fig. 15).

It has been fastened to the rim of

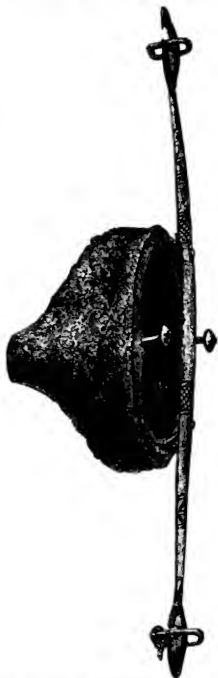


Fig. 14. Boss of Shield, Handle attached.

the boss by two pins of bronze on either side, and it was further secured to the wood of the shield by loops at either end. The form of the shield described in the sagas was round. Although Nicolay-



Fig. 15. Handle of Shield (front view).

sen records upwards of 80 shields found in the Viking graves which he describes, in Norway, notices of the handle are extremely rare, and neither the form of the shield nor of the handle seems to have been accurately made out from the actual specimens. It would appear, however, that in all cases at that time the handle was central, and consequently that the shield was not worn on the arm, but held at arm's length in the hand.

The scabbard end, or mounting of the end of a quiver, I know not



Fig. 16. (?) Scabbard End ($\frac{1}{2}$).



Fig. 17. Sheath Mounting.



Fig. 18. Fragment of Helmet.

which (fig. 16), is not an unusual accompaniment of Viking burials. It is broken, but measures $3\frac{1}{4}$ inches in length and $1\frac{1}{4}$ inch in diameter at the wider end. Another mounting of the end of a sheath (fig. 17) is of

bronze silvered and neatly ornamented. It measures $1\frac{3}{4}$ inches in length and $\frac{1}{2}$ an inch in diameter. There is one already in the Museum from one of the graves on the links of Pierowall, in Westray, Orkney, and several occurred in the graves of the Northmen of the Viking time at Islandbridge, near Dublin.

The fragments of the helmet (fig. 18), if I am right in calling them so, are more unusual, and this is the only instance of their occurrence on this side the North Sea. The Viking helmet was of peculiar form and construction, being often merely a cap of interlaced bands of iron or of wires, interwoven and covered with leather. Frequently they were adorned with fantastic crests, as seen in the representations on the Swedish plaques of bronze (figs. 10 and 11).

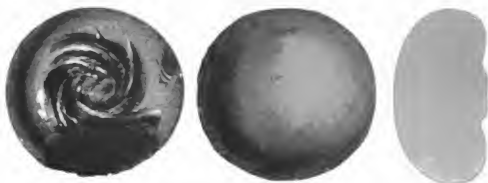
I now proceed to describe the objects found in the woman's grave.

The most curious of these is the lump of black glass, in shape somewhat resembling the bottom of an ordinary black bottle, but flatter in its concavity (fig. 19), and rounder on the convex side (fig. 20), which bears traces of rubbing all over it, as if by continuous use. It is 3 inches in diameter, and $1\frac{1}{2}$ inch thick. No other specimen of this implement has ever occurred on this side of the North Sea, but it is far from uncommon in Norway. Nicolaysen, describing one found in a gravemound,¹ says it is a lump of green glass formed like the bottom of a bottle, and was probably used for smoothing linen, as is still the custom in some districts of Norway. Another is described in the Norwegian Society's

¹ Foreningen til Norske Mindesmaerker's Bevaring, *Aarsberetning* for 1863, p. 94, No. 85. Another, found in a grave-mound $44\frac{1}{2}$ feet long and 13 feet broad, set round the base with large stones, was associated with the following objects: A bronze vessel 8 inches high and 17 in greatest diameter, over which was inverted a pot of steatite, and within them both a quantity of implements of iron rusted into a mass of burnt human bones. These implements were—a knife-blade, $5\frac{1}{2}$ inches long; a large ring, 4 inches diameter, apparently of a bridle-bit; an axe and a sickle-blade, the lump of glass before mentioned, a whetstone, portions of melted bronze ornaments, and an ox-horn. Alongside the bronze vessel were a spear-head and a frying-pan of iron, $8\frac{1}{2}$ inches diameter, with 7 inches of the handle remaining, and all around were a quantity of clinker-nails.—“Foreningen til Norske Mindesmaerker's Bevaring,” *Aarsberetning* for 1871, p. 141.

"Annual"¹ for 1873, as found in a grave-mound in Mandals Amt, where the women still use similar implements for giving a gloss to their white caps. M. Lorange notices half a dozen in the catalogue of the Bergen collection, and states that this form of implement is still used in some districts on the west coast of Norway for smoothing linen.²

I find no notice of the occurrence of this implement in Denmark, and but for an accidental circumstance which occurred since this paper was written, I should not have known of its occurrence in any other locality. When showing the relics from the Ballinaby graves to Mr. J. H. Chalmers



Linen Smoother of Black Glass.

Fig. 19. Back view.

Fig. 20. Front view.

Fig. 21. Section.

of Aberdeen, a Fellow of the Society, Miss Henderson of Stenster, in Caithness, who was also present, remarked that an implement similar to this had been used long ago in their house for a similar purpose, viz, the smoothing or glazing of linen, and that she believed the implement was still in existence. She was afterwards good enough to cause search to be made for it, and it is now engraved (figs. 22, 23, 24), along with the ancient Norse specimen. It is 3 inches in diameter, and $1\frac{3}{4}$ inch thick.

The bronze ladle (fig. 25) is unusual, and seems not to be of Norwegian manufacture—at least, I cannot find any record of a similar object in a Viking grave. Bronze vessels are not rare, but this particular variety with

¹ Foren. til Norske Minder. Bev., *Aarsberetning* for 1873, p. 55, No. 28.

² Samlingen af Norske Oldsager i Bergens Museum. Af A. Lorange, p. 138, No. 2203.

the long handle seems to be uncommon. Its whole length is $17\frac{1}{2}$ inches. The handle is 12 inches long, and the bowl is $5\frac{1}{2}$ inches wide and $3\frac{1}{2}$ inches deep. It is formed of beaten bronze, not much thicker than writing paper. To give strength to the handle the edges are hammered into a T-shaped fillet, and the circular expansion at the end, which

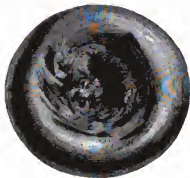


Fig. 22. Back view.

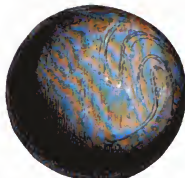


Fig. 23. Front view.



Fig. 24. Section.

Linen Smoother of Black Glass.

is always perforated in Roman vessels, is filled with a disc hammered up from the under side. It is the only specimen of the kind found on Scottish soil, so far as I know. We have in the Museum one almost exactly similar, but shorter in the handle, from Ireland, and there



Fig. 25. Ladle of thin Bronze.

are one or two in the collection of the Irish Academy at Dublin. But they have not been found in sufficient numbers to enable us to say definitely that they are Irish. A curious hoard of bowls and colanders of a similar style of manufacture found in Sutherlandshire is shown on the photograph now exhibited.

Fig. 26. Double Discs of thin Silver Plate ($7\frac{1}{2}$ in. long).

Fig. 27. Silver Hair-Pin.

The only other implement in this grave is a small cylinder of bronze, plated with silver, which I have provisionally described as a needle-case. It is 2 inches in length, and under $\frac{1}{4}$ inch in diameter. A fragment of the point end of what seems to have been a bronze needle still adheres by oxidation to the interior surface of the cylinder. Awls and needles of bronze are not unusual in Norse graves of this period, but I have not met with any record of a needle-case.

Among the ornaments in this grave, the most remarkable are the three double discs of thin silver-plated bronze with circular rows of raised bosses. One of these is shown in fig. 26. They are so thin and wasted that it is difficult to ascertain how they had been used. It seems probable they were attached to the dress, as discs not unlike them were worn in pairs



Fig. 28. Chain of Knitted Silver Wire, and portion of the Chain of the actual size.

on the breast in the early Iron Age. I have searched in vain, however, among the records of the Viking graves for anything exactly like them.

Not less remarkable is the silver hair-pin, with globular head and open loop attached, which is shown full size in fig. 27. It measures 5 inches in length, and the head is ornamented with filigree work. Such filigree work is found in Merovingian graves in France, in Anglo-Saxon graves in England, and in the ecclesiastical art of this country and of Ireland.

The chain of knitted silver wire (fig. 28) also found in this grave is not peculiar to Scandinavia. We have it in the Croy find, along with beads of the same kind as those found in this grave (fig. 29), and with a coin of Coenwulf, King of Mercia, in the end of the eighth century. It

occurred also in the magnificent hoard of silver ornaments of the Viking time found at Skaill in Orkney, in a similar hoard found at Cnerdale in England, and also in a smaller hoard found in the isle of InchKenneth.



Fig 29. Beads found in grave No. 2 at Ballinaby (actual size).

The tortoise brooches, however, of which there is a splendid pair among the objects in this grave, are the characteristic ornaments of the time.



Fig. 30. Oval Bowl-shaped Brooch found in the grave No. 2 at Ballinaby, Islay.

One of them is here engraved (fig. 30). They are $4\frac{3}{4}$ inches in length, 3 inches in width, and $1\frac{1}{2}$ inches high. The spring-pins (fig. 31) of these



Fig. 31. Brass Spring-Pin of Brooch.

two brooches still remain. They are the only ones I have seen, and their preservation is due to the fact that they are of brass. All the pins

of all the specimens in the Museum have been of iron and have disappeared by oxidation. These Islay Brooches have a peculiar interest, as showing the method in which they were ornamented with bands of twisted silver wires, and studs most probably of coloured pastes, which last are unfortunately all gone, although the pins that fastened them still remain.

In a previous paper, in which I have described all the specimens of tortoise brooches known in Scotland up to that date,¹ I have referred to the important fact that the later Iron Age is characterised by the use of an alloy which may be termed a zinc-bronze, in contradistinction to the bronze of the Bronze Age, which is a tin-bronze. Professor Rygh has given the details of the analyses of four tortoise brooches, and the composition of the metal is as follows²:—

Analyses of Tortoise Brooches.		Copper.	Zinc.	Lead.
1. From Stromsund, Norway,	. . .	74·78	10·44	14·36
2. From Braak, Norway,	. . .	72·85	11·90	15·71
3. From Gardness, Norway,	. . .	88·00	11·90	...
4. From Denmark,	. . .	84·44	11·00	3·77

The geographical distribution of these brooches³ marks the range of the Scandinavian conquests of the ninth and tenth centuries. In Iceland, in Russian Livonia, in Normandy, in England, in Ireland, and on our own shores in Shetland, Orkney, Caithness, and Sutherland, and in the

¹ Notes on the Relics of the Viking Period.—*Proceedings*, vol. x. pp. 549-62.

² Norske Broucelegeringer fra Jernalderen af O. Rygh, p. 6.

³ In a letter to me acknowledging receipt of a copy of my "Notes of the Relics of the Viking Period of the Northmen in Scotland," Professor Rygh, Curator of the Museum at Christiania, says: "Among the oval brooches which you have figured, there is not one that might not have been found in Norway. The brooch from Pierowall is of a form exceedingly common with us, of which I know no fewer than 108 specimens. The commonest form of all in Norway is that of the brooches from Islay and Tiree, of which we have 118 examples. The brooches from the Longhills at Wick belong to a variety of the last form well known with us, and that from Castletown in Caithness has many analogous examples here in Norway, although they are not so common as the two previously mentioned types." Figures of these brooches are given in the *Proceedings*, vol. x. pp. 560.

Hebrides, including even the remote St Kilda, their presence attests the historical fact of the Viking settlements from Norway. But the area in which they are specially abundant of course is in Scandinavia itself. I find on comparing the different records that there are now upwards of 500 of them known in Norway. When we add the number known in Sweden, which exceeds 400, and those of Denmark, which only amount to 38, we have a gross total of nearly a thousand, of which the larger portion are from Norway. No archaeological period in any country is marked by such a distinctly peculiar and characteristic class of objects.

It is beyond my power as well as beyond the scope of the present inquiry to deal with the questions of the origin, development, and decadence of the singularly effective but intensely peculiar style of art which they exhibit. It is evidently a continuation of the zoomorphic style of decoration which prevailed so widely in the early Iron Age, and of which there was a peculiar phase of development in Scandinavia. But whence it came, what its relations were to the contemporary art of Southern Europe, and what were the successive stages of its development, are questions which no one has yet endeavoured to answer. The very vastness and richness of the field of research in this direction is doubtless one of the reasons why so few of its peculiar problems have yet been worked out. But it is also unfortunately too true that the Scandinavian archaeologists have systematically cultivated the study of the earlier periods to the comparative neglect of the richest period of their Iron Age. This, however, is now being rectified, as the interest that was formerly attached exclusively to the merely mysterious is being more generally transferred to the purely scientific.

Before leaving this branch of the subject, I may remark that the island of Islay¹ has yielded a larger number of burials of the Norse Viking time than any other district of Scotland, the island of Westray

¹ Islay is the Il of the Sagas, and a large proportion of its place-names, are of Norwegian origin. Among these may be instanced such names as Stromness, Lyra-bols, Scarnbols, Nerabols, Cullaboll, Nerby, Conisby, Elistar, Skeba, Olistar, Laxay, Aros, Cracobus, Cornibus, &c.

in Orkney alone excepted. We have already in the Museum a pair of tortoise brooches from Ballinaby. They were found not far from the site of these two graves, under a large standing stone—the *bauta-stein* of the Norse grave-mound—and presented in May 1788 by Colin Campbell,



Fig. 32. Brooch found at Ballinaby, Islay, in 1788.

Esq., of Ballinaby, a worthy predecessor of the Ballinaby to whom we owe the presentation of these interesting relics to-night. One of them is shown in fig. 32. In 1845 a similar deposit was found in the strath near Newton distillery. The grave was in a gravel bank on the side of the strath. In it were two oval, bowl-shaped, or tortoise brooches and an



Fig. 33. Brooch found in a grave near Newton, Islay.

amber bead. The brooches are of the single shell type, like the one in the Museum from Pierowall, and the interior bore the mark of cloth, as all these brooches do. The pins as usual were of iron, and the external ornamentation (as will be seen in the woodcut fig. 33) closely resembled that of the Orkney ones. The shell of the brooch is pierced for

eight studs at the intersection of the panel borders. There is no ornamentation of silver wires as in the Ballinaby specimens, but the borders are filled by a simple fret inlaid in silver or other white metal. The centre of the brooch is occupied by a rounded stud, and the centres of the two lozenge-shaped panels on the top are also occupied by lozenge-shaped studs, executed in the casting. The chased ornamentation is very rudely executed, and the precise form of the designs difficult to be made out, though they are of the usual character. The length of each of the brooches is $4\frac{1}{2}$ inches, width $2\frac{3}{4}$ inches, height 1 inch. I heard of them incidentally from Lady Jane Dundas, who visited the Museum to see the Ballinaby relics; and I owe the details to the courtesy of John F. Campbell, Esq. of Islay, who has kindly sent the brooches for exhibition. He also adds the further information that "similar brooches, one or more, were found in Mull, and were lately in the possession of Lord Northampton at Torloisk, where I saw the things in August 1877." The addition of these three pairs of brooches to the Scottish list brings up the total of tortoise brooches found in Scotland to 32.

I pass now to the general question of the burial customs of the Norse sea-kings. The testimony of the earlier sagas is unanimous that the common mode of sepulture in the heathen Viking time was by raising a mound over the remains of the dead,¹ who were placed in their grave-mounds honourably with great store of goods, weapons, and ornaments, and costly garments, horses, and sometimes even thralls, or slaves.² Thus we are told that great store of goods was placed in the how with Hrafnkel Freysgode,³ and all his war-suits and his good spear; while, on the other

¹ The raising of the *haug*, how, or grave-mound, was regarded as an important duty. Gísli went out with all his folk to lay Vestein "in the sandhill which looks down on the tarn below Sæbol," and Thorgrim and his folk joined them on the way.

—"Saga of Gísli the Outlaw," Dasent's translation, p. 41.

² It is recorded in the "Landnámabók" that a thrall was buried in the how with Asmund Atleson.—"Landnámabók," Copenhagen, 1843, cap. 81.

³ Sagau af Hrafnkeli Freysgode, Copenhagen, 1847; Aarbøger for Nordisk Oldkyndighed og Historie, 1870, p. 369.

hand, it is recorded of Hoskuld, that they made a great how over him but there was little property placed in it. The full significance of this practical reflection on Hoskuld's memory may be found in the exhortation of Ketil Raums to his son Thorstein. When urging him to take to the Viking, he reminded him that from of old it had been the custom of great men to go on warfare, and get for themselves goods and gear, and that the goods so gotten and the gear so gathered were not subject to heirship, because they were destined to be laid in the how with the warrior who won them.¹ So also we are told that Skalagrím was laid in his how with his horse, his weapons, and his smithy-tools,² and Egill was buried with his weapons and his clothing. Thorgrim, priest of Frey at Sæbol, was buried in his ship, over which they raised the how after the ancient fashion,³ and Gísli took a great stone from the river-bed and dashed it down on the ship, so that the timbers creaked again, saying as he did so: "I know nothing of making a ship fast if any weather stirs this one." Sometimes the dead man was placed sitting in his how. "They cast a mound over Gunnar and made him sit upright in it;" and it is added that his mother would not hear of his favourite weapon being buried with him, because she reserved it for the avenger of his death; but afterwards his son Hogni said he would take it to his father that he might have it with him in Valhalla, and bear his favourite weapon in the meeting of warriors there.⁴ Perhaps the most striking of all the saga notices of heathen burial is that of the burial of King Harald Hildetand, who was slain on Bravalla Heath by his nephew Sigurd Ring in the middle of the eighth century. After the battle, the victor caused search to be made for the body of his uncle, which he placed in his own chariot in the midst of the grave-mound; then his horse was slain and laid beside the dead; and Sigurd caused his own saddle to be placed beside the horse, so that Harald might have his choice, and ride or drive to Valhalla as he had

¹ Vatnsdæla Saga, Leipsig, 1860, cap. 2.

² Egils Saga, Reikavík, 1856, caps. 89-91.

³ Gísli Saga, Dasent's translation, p. 55.

⁴ Njal Saga, Dasent's translation, vol. i. pp. 249-252.

a mind. Then Sigurd made a great funeral feast, and the nobles threw massive rings and splendid arms into the tumulus in honour of King Harald. So also we are told that when Hakon the Good defeated the sons of Gunnhild, he caused their ships to be drawn up on the strand, the slain to be laid in them, and great mounds of earth raised over them.

Thus we gather from the early literature of the Scandinavians a very vivid impression of the character and accompaniments of their heathen burial. Yet this literary evidence is characteristically defective on those special points of detail that are of such paramount interest to the archaeologist. Hence when it is attempted to be used scientifically, the result is what might be expected of a scientific operation conducted with unscientific materials. For instance, Dr Dasent gathering the literary evidence into one generalisation, says that the burial took place in a how or cairn, and the body was laid in the how with goods and arms, sometimes in a sitting posture, sometimes even in a ship, but *always* in a chamber, formed of baulks of timber or blocks of stone, over which earth and gravel were piled. Now as it is the main object of our science to attain to great and wide generalisations from completed evidence, it is manifest that such a generalisation as this, which gives us what *always* was the special character of the sepulchral structure for a given period, would be one of the most precious and costly fruits of scientific research. Founded on purely archaeological evidence, it could only be the result of the completed investigation of all the grave-mounds of the period. As here given, it is of course arrived at by a much shorter process, viz, the comparison and critical interpretation of a few texts, for it is not expressly stated in any text, but is an inference from incidental expressions in several of them.¹ And the interest with which we as archaeologists must

¹ Sometimes the description of a burial mentions the digging of a grave instead of the raising of a mound. When Thorolf died, Egil took his body and prepared it according to the custom of the time, then they dug a grave and placed Thorolf in it with all his weapons and raiment, and Egil placed a gold bracelet on each of his arms, then they placed stones over him, and earth over all.

regard the inference, lies in the fact that this special form of sepulchral mound, which is deduced from the literary evidence as having been *always* the form in use throughout the Viking period, is a form which is archaeologically unknown in that period. No chambered mound of the Viking time is yet known in Norway, and the records of about 1000 Viking grave-mounds which have been examined in that country give only two that were furnished with cists, all the others being both uncisted and unchambered. But it is to be observed that the express statements of the sagas are all borne out by the archaeological evidence. It is only when a general inference is drawn as to the universal prevalence of a constructive custom that there is any conflict between the literary and the archaeological results.

It is also to be observed that the saga evidence is defective as to the customs connected with cremation,¹ and the only literary evidence we possess in regard to them is to be found in that strange narrative by an eye-witness which I translated in the ninth volume of the *Proceedings*. The scene is on the banks of the Volga, and the date is towards the close of the Viking time. The narrator tells us that there was a temporary interment till all the preparations were made; that a female slave who had elected to die with her master was given in charge to an old hag, who as mistress of the ceremonies was significantly styled "the death angel;" that the dead man's ship was hauled up on the strand and prepared to be his funeral pile; that when all was ready the corpse was taken out of its temporary grave, arrayed in fur-mounted and gold embroidered garments, and laid in state on the deck where a banquet was spread for him; that his weapons were placed ready to his hand, and two horses, two men, his

¹ Snorri says that the custom of burning the body was over before the time when the historical sagas begin their chronicle of events. The fact that it is represented in the mythological sagas as the burial rite of the Æsir, in the *Twilight of the Gods*, shows that it was out of memory as a human custom in Iceland at least. There are proofs, however, that the custom of burning the dead was not wholly extinct in Europe, even in the twelfth and thirteenth centuries. (See the "Narrative by an Eye-Witness of the Ceremonies attending the Cremation of a Norse Chief on the Banks of the Volga."—*Proceedings*, vol. ix. p. 518, and also vol. xi. p. 370.)

dog, and two fowls were hewn in pieces with swords and cast into the ship; that the woman who was to die, after taking leave of her friends, was first drugged with strong drink and then brutally slaughtered with a big knife by the death angel, while two men pulled the ends of a cord wound round her neck and the crowd beat upon their shields to drown her shrieks; that she was then laid beside her dead lord and the pile fired by his nearest relative, and after it had burnt out a great mound was raised over the ashes.¹

Turning now to the evidence derived from the grave-mounds themselves, we find that it corroborates and supplements the literary evidence in a remarkable manner.

For instance, close above the strand at Møklebust in Norway there is a semiglobular mound, 12 feet high and 92 feet in diameter, round its base there is a ditch 12 feet wide and 3 feet deep. On the south and east the ditch is interrupted by accesses on the natural level of the ground—a feature similar to that presented by many of our stone circles. The whole base of the mound when explored was found covered by a layer of ashes. In an oval about 28 feet long and 14 feet wide lay a quantity of iron rivets and nails as they had settled down among the ashes when the planks they had fastened were consumed. Around the circumference of this oval, and among these rivets, were found no fewer than 42 shield bosses, mingled with pike-heads, axes, swords, knives, and other implements of iron. Near its centre lay a large bronze caldron one-third full of burnt human bones, over which were heaped the bosses of thirteen shields now

¹ It may be interesting to add here two notices of Tartar burials in the thirteenth and fourteenth centuries. Johannes de Plano Carpini, a missionary who visited Tartary in the years 1246 and 1247, and afterwards wrote a "*Historia Mongolorum*," states that the better sort among them were buried in their tents, sitting at a table furnished with flesh and milk, and that there was buried with the dead man, an ox, and a fowl, and a horse bridled and saddled, and that another horse was killed and eaten for the funeral feast, and its bones burned. He also states that they buried much gold and silver with their dead. Jordan Severacus, who travelled in Tartary in 1339, states that when their great men die they are buried with a horse, and that one or two of their favourite servants are buried alive with them.—Holmboe, "*Stormænds Begrævelse blandt Skandinaver i Hedenold*," p. 8.

firmly rusted to each other and to the sides of the pot. The pot itself was splendidly enamelled—in fact an exquisite work of art. Among the bones within it was a pike head which M. Lorange, who explored the mound, concluded to have been the weapon by which the Viking met his death. Recounting the whole circumstances of the burial as observed in the process of exploration, he says,—it seems that the sea-king's men had drawn his ship up on the strand, with all its fittings as it was on the day of his death, laid the dead man in it clad in his best and with his arms and his horse; then they hung their shields round the gunwales as they used to do when going on a cruise, hoisted the sail, piled wood under and around, and fired the vessel as she stood; lastly, they gathered the burnt bones into this splendid pot, covered them with the bosses of burnt shields, and placed them in the centre of the heap of ashes over which the great mound was finally reared.¹

More frequently the vessel and its contents have not passed through the fire. One such ship I have seen. It was found under a mound at Tune, and is now preserved in an outbuilding attached to the museum at Christiania. The mound was about 12 feet high and 80 yards in circumference. The vessel stood on the original surface, on even keel. It is clinker built, the planks of oak, the ribs of fir. The keel is 43½ feet in length and the ship was low and narrow for her length, which is that of a first-class herring boat of the present day. Each side was of eleven planks, an inch thick, fastened with clinker-nails, having round heads outside and square heads on the inside. The seams were caulked with tarred oakum of neats' hair. The ribs, thirteen in number, are built of three different layers of wood fastened with oaken trenails and iron nails. The mode in which they are fastened to the skin of the boat is peculiar. The upper boards alone are fastened with oaken

¹ Samlingen af Norske Oldsager i Bergen's Museum. Af A. Lorange, pp. 153-57. A similar case of a burnt ship occurred at Lackalanga in Sweden.—"Annaler for Nordisk Oldkyndighed," 1858, p. 177. The sea-king Hake of Hordaland, who fell in the fight at Tyrissvold, was placed in his ship, which was filled with fallen warriors and their weapons; the sails were then set, the rudder lashed, and the wind being off the land, the vessel was fired and went flaming out to sea.

trenails, and the lower ones are merely attached to the planking by ropes of bast passed through holes in the ribs and then through corresponding holes in wooden clamps on the planks on each side. She had a mast of fir secured in a step on the bottom lining, and she was steered by a side rudder like the galleys in the Bayeux tapestry. The Viking's body, which was unburnt, was placed on a wooden platform abaft the mast. Beside it lay the bones of a horse with remains of the saddle. Some beads of coloured glass, some fragments of clothing, a sword of the common Viking type, a spear-head, a shield boss, a rolled up coat of mail, and a number of iron implements lay near it. At the side of the ship, and thus apart from the saddled horse which lay by the man's side, were the bones of other two horses, one of which was a young animal. This singular fact of the burial of a saddled horse beside the man, and a mare and her foal in another part of the ship, was repeated in the ship grave-mound at Borre. This mound was oval in shape and 122 feet in length. The man's bones lay on the starboard side, and close by him those of a saddled horse, while the bones of a mare and her foal were found in a standing position at the larboard side.

But it is needless to multiply instances, yet it may be interesting to remark that similar ship-burials of Norse Vikings have occurred in three instances on our own shores, and that the relics from them have been for many years in our own Museum, although their distinctive character has been hitherto unrecognised. I had referred to them as Viking burials in my previous paper, but I did not then perceive the significance of certain facts which leave no doubt that in all three cases the man had been buried in his ship, and in two out of the three his horse was buried with him. In one case we have the bones of the horse, and in the other one of the cheek rings of the bridle. This, though large, is of the usual size of the Viking bridle ring, which sometimes was as much as 4 inches diameter. All three burials were accompanied by quantities of iron rivets, which are square-headed on the one side and round-headed on the other; and this is the special characteristic of the clinker-nails of the Viking ships buried in the grave-mounds of Norway.

The first of these ship-burials was found by Mr George Petrie in a sand hill at Gill, in Westray, in 1841. The relics from it were deposited in the Kirkwall Museum. They were purchased by Col. Balfour when that museum was broken up, and sent here. They are described in the Donation List for January 1863¹ as the bronze cheek ring of a bridle, with part of the iron bit, and fragments of a shield, found with the skeletons of a man and horse in a grave on the sand of Gill. The so-called fragments of a shield are pieces of wood with iron rivets through them. It never occurred to me to doubt their being fragments of a shield until recently, when going over the remains of all the Viking shields in the Museum, I came to these and saw that the rivets are square-headed on one side and round-headed on the other. This, as I have said, is the characteristic of the clinker-nails of the Viking ships buried in Norwegian grave-mounds, and of course when it is remembered that there is no instance of a shield with iron rivets, when we also notice that the rivets pass obliquely through the wood, and that the thickness of the wood between the rivet heads is fully twice that of any shield whose thickness is known, there can be no further hesitation in ascribing these rivets to the remains of a clinker built boat or ship, which had been hauled up on the strand at Westray, and the man placed in it with his horse ready saddled and bridled so that he might take his choice and ride or sail to Valhalla. The other instances are also from Westray. A mound which was also a sand hill, situated in the bay of Pierowall, on the opposite side of the island, was explored by Mr Farrer in 1855.² The articles found in it were presented to the Museum, and with our present knowledge we have no difficulty in recognising in the fragments of wood and iron supposed to be portions of a shield or buckler, the clinker-nails of another Viking ship, with square heads on one end and round heads on the other. The third instance is also from the bay of Pierowall, Westray. The mound was explored by Mr Farrer and Mr George Petrie in July 1863, and the articles found were presented to the

¹ Proceedings, vol. v. p. 16.

² Proceedings, vol. ii. p. 158.

Museum in April 1864.¹ They consisted of several portions of a human skeleton, and of the skeleton of a horse; two iron buckles, one 3 inches broad and probably the buckle of the saddle girth, the other smaller; and a number of pieces of oak with iron clinker-nails or rivets, having square heads on one end and round heads on the other.

Returning for a moment to the literary evidence, it is also interesting to remark that as heathenism was dying out, and its practices gradually giving way before the enlightening influences of Christianity, the cairn of stones which from the earliest times had been accounted the honourable mode of sepulture came to be associated exclusively with the idea of dishonourable burial. Thus we find it referred to as the natural sequel of the stoning of witches and warlocks,² and as the method adopted for the effectual entombment of those who would not otherwise lie quiet in their graves. So also the burning of the body, which had of old been the honourable and customary mode, was reserved for wretches like Thorolf Baegifot, who, because he would not lie in his grave, but wandered in the night time killing some and frightening others out of their senses, was taken up and burnt, and his ashes strewed abroad on the deep sea. Women were especially suspected of this walking after death, and it was probably to this feeling that the strange circumstances of the burial in the Haraldskjær Moss were due. I refer to it on account of the incidental bearing of some of its relics on the probable age and character of a very remarkable relic now in the Museum.

In 1835 some labourers digging peats on the Moss of Haraldskjær in Jutland found the body of a woman embedded in the peat. It was stretched on its back and pegged down in the moss by hooked branches driven in so as to fasten down the legs and arms at the knees and elbows, and further secured against a change of position by other branches placed across the breast and abdomen and staked down at the ends. Some frag-

¹ Proceedings, vol. v. p. 300.

² So we are told in the "Laxdæla Saga" that the wizard and witch, Kotkel and Grima, were stoned to death, and over them was erected a cairn of stones, of which the remains are to be seen at this day. Their son Stigand, who fled at the time, was afterwards taken and also stoned and cairned.

ments of the dress were preserved, and among them is one of a peculiar style of woollen fabric (fig. 34), having a fringe of knotted cords of the same material. Its close resemblance in texture and in the style of its fringe to the remarkable hood found in Orkney (fig. 37) suggests that the hood belongs probably to the period of the Scandinavian occupation of these islands.

This hood, which was found in a moss in St Andrews parish, in the Mainland of Orkney, was long in the possession of the late Mr George Petrie, of Kirkwall, and was acquired for this Museum after his death, along with his general collection. It measures 32 inches in length and 17 inches in greatest width. The border round the base of the hood,

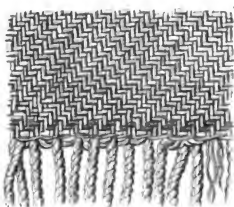
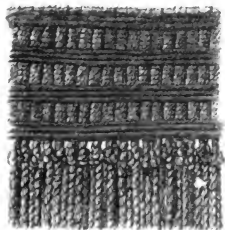
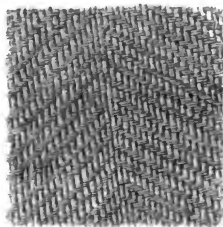


Fig. 34. Woollen Fabric from the Moss of Haraldskjaer, Jutland.



35



36

Figs. 35 and 36. Part of the Border and Fringe at the base of the Hood, and of the Upper part of the Hood, showing the twilled Bands (actual size).

to which the fringes are attached, is 3 inches in width. Part of the border, with the fringes, is shown in fig. 35. The fringes are two-ply cords,



Fig. 37. Hood found in a Moss in St Andrew's Parish, Orkney.

knotted at the ends, and they are fastened to the band at the base of the hood by a knot of peculiar construction. The upper part of the hood is of a peculiar twilled fabric, worked in alternating bands, somewhat as represented in fig. 36, although the woodcut scarcely shows the true difference between the bands. No similar piece of dress is known to have been recovered from any of the mosses of Scotland.

This occupation of the northern and western parts of Scotland by the Northmen forms an episode in the history of our country, only second in importance to the earlier occupation of its southern districts by the Romans, and far surpassing it in the interest of its historical annals. Of its interest and importance in an archaeological point of view you can judge for yourselves from the number and variety of the relics which I have placed on the table for the purpose of exhibiting in one view the whole series of objects now in the Museum of the Viking period. Rich as the collection is, I trust that it is merely a forecast of what may be yet recovered, as the true significance and archaeological value of these bits of rusty old iron becomes more generally known and more intelligently appreciated.

The transition from pagan to Christian burial customs in Iceland was sudden, and is curiously illustrated by one or two incidental notices in the sagas. Thus, when Auda the wealthy, a daughter of Ketil Flatnef, who had been baptised in Ireland, died in Iceland, she had ordered that she should be buried in the strand between the ebbing and flowing of the tide, because being a Christian she could not lie in unconsecrated ground, and there was yet no consecrated ground in Iceland. The "*Laxdaela Saga*," however, says that she was buried in a ship and a how raised over her, and that great store of goods was buried with her. Bjorn, her brother, who died after the introduction of Christianity, was laid in a how at Borgarlek, because he was the only one of Ketil's children who died unbaptised. But it was only for a short time and for obstinate heathens that the old custom was retained. When Thorkel Torgilsson was baptised with all the Vatnsdalers he built a church and gave grave-ground to all his Thingmen. Sometimes the bones of heathen

relatives were taken up from their hews and brought to the churchyard, as when Tordis caused Egil's bones to be dug up and brought to the church which her husband Grim had built at Mossfell. It is to the transition period that the eccentricities of burial sometimes recorded are mostly due. When Hrapp was about to die he ordered that they should bury him in a grave in the doorway of his house, so that he might see all that went on in it. Tungeodd ordered that when he was dead they should bear him up to the top of Skaucyar fell, from which he would see over the whole country. Thorkel, grandson of Lyulf, the first Landnamsman, when in his death throes, caused himself to be borne out into the sunshine, and commended himself to the God that made the sun.

It would have been easy to lengthen this paper, but enough has been said to show that the characteristics of the heathen Viking's burial were peculiar to his race and to his time. We cannot compare them with contemporary burials of Celtic origin in Scotland, because there were none such. At the time when these Vikings were thus depositing their dead, after their heathen manner, around our coasts, Christianity had been as long in Scotland as the distance of time which now separates us from the period of the Reformation. We have therefore no series of Scottish sepulchral remains corresponding to those of the later Iron Age of Scandinavia, for the reason that the people of this country, being then Christians, had long ceased to deposit such objects in their graves. And we have no series corresponding to that of their early Iron Age, for the reason that Scotland in that period was directly in contact with the influence of Roman civilisation and Roman art, while Scandinavia lay beyond the reach of such contact. Even in their earlier ages of Bronze and Stone, their typical forms and styles of decorative art have no affinities which would enable us to predicate those of Scandinavia from the study of those in Britain, or contrariwise. The great lesson taught by comparative study of the antiquities of these two areas of Western Europe seems to be, that just in proportion as our knowledge of them becomes more precise and comprehensive, we shall the more clearly perceive the nature and extent of their *differences* as generic groups; and

the more clearly we perceive this the nearer we shall be to the discovery of the laws that regulate the geographical distribution of typical forms among the implements of pre-historic man.

APPENDIX.

In consideration of the archaeological interest attached to every authentic record of the occurrence of these Viking burials on Scottish soil, I have judged it advisable to print the following notes, taken at the time of the exploration of a remarkable group of interments of this period by Mr William Rendall, at Pierowall, in the island of Westray, Orkney. The notes are contained in a letter addressed to Captain F. W. L. Thomas, R.N., from whom I have received them; and they are now printed exactly as they stand in Mr Rendall's manuscript.

"PIEROWALL, WESTRAY, 18th Oct. 1849.

"DEAR SIR,

"I have made out a hurried copy of the notes I took when digging at the burying-ground at the north of Pierowall. If I had been able to have shown the various articles found, the notes might have been of service; but unfortunately nearly all the specimens have been given away, so that only the notes remain.

"*Notes taken at Graves found near the Sea-shore on a line running north and south.*

"No. 1. The grave had been previously disturbed. Found so much of skeleton as to show that the body was lying north and south, rather inclining to the right side, with the face toward the sea. Only half of the skull was found, and, from its appearance, may have been cleft before being buried. Found a small iron hatchet lying before the body; also several small pieces of iron were found round the grave, plainly showing that there had been armour¹ attached to the person buried. Half of a helmet was also found.

¹ The appearances observed produced this impression on Mr Rendall's mind; but it is impossible to say what these small pieces of iron may have been. Armour of plate did not come into use for some centuries after the heathen Viking time. The helmets of that period which are known are made of straps like hoop iron, but the "half of the helmet" mentioned may have been part of a globular boss of a shield.

"No. 2. Found a grave containing part of a human skeleton, with that of a horse. The horse was laid on its belly, with its head towards the sea, and directed north-east, with its hinder part towards the south-west. The horse's head was resting on the nose, and quite entire, of rather a small size. After removing it a piece of iron was found between its jaws, plainly showing that it had been a bit, with one of the rings for the bridle. Found immediately before the horse's head part of a human skeleton lying with the feet toward the north. No head could be found. The thigh bones were crossed. Found much remains of iron rust, with a small piece of iron, either a spear-head or small sword. A buckle was found on the right side; also a piece of bone, which had been attached to metal. Part of the skeleton of a dog was also found in the grave.

"No. 3. Found a grave containing part of a human skeleton, with a small dagger lying beside it. The position could not be ascertained. Part of the skeleton of a horse was also in the grave, with remains of bits of iron.

"No. 4. Found a skeleton a considerable way towards the north, lying on its right side, with the knees drawn up toward the abdomen. No remains of armour were found.¹

"Graves found round a Mound of Sand and Small Stones, at a considerable distance from the Sea, in a line running north-west from the former Sites of Graves.

"No. 1. Found on the southmost site of the mound a large male skeleton, nearly entire, lying north and south, having large stones set round it in a square form.² After carefully removing the sand the skeleton was lying rather on its left side, with the knees drawn up and the arms crossing over the breast. About two inches from the top of the head was found a cup-like piece of iron, evidently the part of a helmet.³ On the left side was found a sword measuring about four feet in length. A large sharpening stone was found in the grave, with a comb and several glass beads.⁴ Bits of iron and wood, attached probably to the remains of a shield, were also found.

"No. 2. Found on the north side of the mound a small skeleton lying north and south, having two hollow copper ornaments on the breast,⁵ with a circular piece and pin a little lower down, right over the region of the stomach. Supposed to be of a female. No remains of iron or rust was found near it.

"No. 3. Found on the north side of the mound, between a row of small stones, a small skeleton, with two hollow ornaments and a small pin, as the former. No

¹ It seems from this expression that Mr Rendall uses the term "armour" as including both arms and a mour.

² There is no necessity for supposing this a cist. Cists are almost unknown in Norwegian graves of the Viking time, but the setting of stones in the form of an enclosure round the grave is common.

³ More probably the boss of the shield, which may have been placed on the shoulder as it was carried by the Vikings on the march.

⁴ Glass beads are often found in the graves of men in Norway.

⁵ These were undoubtedly the characteristic tortoise brooches of the Viking time.

remains of iron were found. Two long combs, with ornamental carving on each side, were found, [one] above each shoulder. The teeth of the combs were fastened between two plates of bone riveted together with copper nails. Supposed to be a female.

"No. 4. Found part of a skeleton on the north side of the mound, but had been previously disturbed.

"No. 5. Found part of a small skeleton on the north-east side of the mound, with ornaments, pin, and combs as formerly described, and evidently a female.

"The head of No. 1 was lying toward the north, and the heads of Nos. 2, 3, 4, and 5 toward the south.

"Believe me to be, DEAR SIR,

"Yours very truly,

"Capt. THOMAS."

"WILLIAM RENDALL."

In my paper on the "Relics of the Viking Period" I gave an abstract of the contents of four of these graves, from the published accounts of them,¹ which I find, on comparing it with Mr Rendall's original notes, is in several particulars inaccurate.

Two years after the date of these notes Mr Rendall presented to the Museum the relics found in "one of a remarkable group of graves at Pierowall," which is not described in the notes given above, and of which no record is now known to exist. The articles are described in the minutes of the Society's meeting in June 1851 as :



Fig. 38. Oval Bowl-shaped Brooch found in a Viking grave in Westray.

"A bronze oval brooch, ring-brooch, and various iron relics, including a hiltchet, spear-head, and portion of the umbo of a shield—all found in one of a remarkable group of graves on the links of Pierowall, Westray, Orkney; also a male human skull from the same grave."

I figured the shield-boss and the tortoise brooch (fig. 38) in my previous paper,

¹ Catalogue of the Bute Museum, p. 169; *Archæological Association's Journal*, vol. II, p. 329; Wilson's *Prehistoric Annals of Scotland*, vol. II, p. 303.

but the identity of the ring-brooch had been lost, and was only discovered by the accidental finding of a small piece of tracing-paper among some miscellaneous memoranda in the Society's library. The tracing-paper bore a rough drawing of the ring-brooch and skull, and a pencil jotting, sufficient for the identification of the brooch as one of those in the Museum (fig. 39), to which no locality was attached. It is interesting, as being a brooch of Celtic type, and the only thing of distinctively Celtic character found in those graves. Such Celtic ornaments are occasionally found in Viking grave-mounds on the west coast of Norway, as might be expected from the frequent intercourse between the colonies in Scotland and Ireland and the mother country during the Viking time.

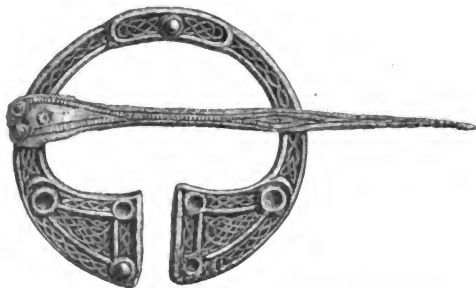


Fig. 39. Celtic Brooch of Penannular form, from a Viking grave in Westray.

I am also indebted to Mr Jón A. Hjaltalin, Advocates' Library, for the following summary of remarks made by him at this meeting on the subject of the results of recent researches in Iceland, supplying evidence of the burial customs of the closing period of paganism among the Norwegian colonists of that island:—

"Since 1850 a number of ancient burial mounds have been examined in Iceland containing remains which appear to belong to a period prior to the introduction of Christianity into the island in A.D. 1000.

"1. *Baldursheimur*.—A grave-mound at Baldursheimur, in the north of Iceland, was excavated in 1860. The mound lies east and west. The skeleton lay at full length, with its head to the east and feet to the west, the arms extended by the sides. On the right side were an iron spear, twenty-four table-men of bone, and one of a set of oblong dice. On the left side an iron sword, a small bone with a hole in one end,

and a broken bead of glass. The sword had evidently been encased in a wooden scabbard. Near the feet of this interment were the remains of a young horse, and the bit of a bridle.

"2. *Gautlönd*.—At Gautlönd, in the north of the island, some workmen digging the foundations of a barn came upon the skeleton of a man about 3 feet under the surface of a small hillock. The skeleton appeared to have been interred in a sitting posture, and the bones of a dog were found under its knees. No other relics were found except a small iron knife.

"3. *Hofurbyarnarstadir*.—Seven graves were discovered in a sand-drift here in 1868. The first and largest was 14 feet long and 4 feet broad. It lay east and west, and contained two skeletons, placed in the west end of the grave, with their heads laid to the west. One of the skeletons was that of a full-grown man, the other that of a youth. At their feet were the bones of a dog, and in the east end of the grave the skeleton of a horse. On the right of the man was an iron sword mounted with silver, the ferule being of bronze and gilt. Above the sword lay an iron axe-head, a bridle-bit, and the buckle of a saddle-girth. In the grave were also found the fragments of an iron helmet and of an iron pot, a whetstone with a hole in one end, a comb of bone, and a number of rusty nails, and fragments of decayed wood.

"In the second grave, which lay from south-west to north-east, there were found the bones of a man and a dog (those of the dog being at the feet of the man), and a spear-head of iron.

"The third grave was 8 feet long and 4 feet broad. In it were found the bones of a man, along with those of a dog (as before), and an iron spear-head. In this case the skull lay between the thighs of the skeleton.

"In the fourth grave were found portions of a human skeleton and the bones of a horse.

"In the others fragments of human bones were found, but no weapons. Each of these graves was surrounded by a low wall of stones, and covered with flat slabs.

"5. *Kalfborgara*.—Five graves were discovered at this place in 1869. They lay either south-west and north-east or from east to west. In one there were found, along with the skeleton, two brooches of bronze, four yellow glass beads, and a pin of bronze. In another grave an iron spear-head lay on the left side of the skeleton. The third grave was circular, and surrounded by a strong stone wall. In it were found the bones of two horses and the buckle of a saddle-girth. In the other two graves nothing was found except the human skeletons.

"All these graves were surrounded by walls of loose stones, and covered with gravel and stones.

"All the weapons and articles found in the different localities above mentioned are preserved in the Antiquarian Museum of Reykjavik, and are described in the report of the museum drawn up by its late keeper, Mr S. Gudmundsson."

MONDAY, 12th January 1880.

REV. THOMAS MACLAUCHLAN, LL.D., Vice-President,
in the Chair.

A ballot having been taken, the following Gentlemen were duly elected Fellows:—

JOHN ELLIOT, Esq. of Binks.

JOHN RAMSAY, Esq. of Kildalton, M.P.

GEORGE MILLER SUTHERLAND, Esq., Solicitor, Wick.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1.) By the TRUSTEES of the late DAVID LAING, LL.D., F.S.A. Scot.

Two large Circular Panels of carved oak, 28 inches diameter, from the old Palace at Stirling, supposed to represent James V. and his Queen, Mary of Guise. Each panel contains a bust within an ornamental border, carved in a rude style of art. They formed part of a series, (Nos. 1 and 31), the whole of which are described in the work entitled "*Lacunar Strevelinense*"; a collection of heads etched and engraved after the carved work which formerly decorated the roof of the King's room in Stirling Castle. Edinburgh, 4to, 1817. They are also described and figured in the Illustrated Catalogue of Antiquities, Works of Art, and Historical Scottish Relics exhibited in the Museum of the Archaeological Institute during their meeting in Edinburgh in July 1856.

Vase, with handle, of black Chiusan ware, $8\frac{1}{2}$ inches high, ornamented with figures of chimerae in relief.

Three small Miniatures on paper. One is intended for Queen Mary, the other two are in lockets. On the back of one is the inscription in the style of the last century, "James Stuart, Earl of Murray (Regent of Scotland) *ob.* 1570," and on the back of the other, "James Douglas, Earl of Morton, *ob.* 1581."

Marble Slab inscribed :—

FAVSTILLA FLAVI
CLEMENTIS. SER.
PIA. VIX. AN. XX. II. S. E.
HERMEROS CAESARIS. N. SER
TABELLAR. CONIVG. PIAE. F.

The reading of the inscription seems to be as follows :—

Faustilla Flavi Clementis serva pia, (quae) vixit annos viginti, hic sepultus est. Hermeros, Caesaris nostri servus tabellarum, conjugii piae fecit (monumentum).

(2.) By CHARLES POYNTZ STEWART, M.A., F.S.A. Scot.

Two Medals in Bronze. Obverse, bust of the Pontiff, and the inscription, "GREGORIUS XIII PONT. MAX. AN. I."; reverse, an Angel with the cross in the left hand and a drawn sword in the right, over a heap of slaughtered Huguenots, and the inscription, "VGNOTTORVM STRAGES 1572."

In a letter accompanying the donation Mr Stewart says :—"I beg to offer for the acceptance of the Society two medals, which I purchased last February in Rome, and which are struck from the die now in the Vatican Mint, where I purchased them. These medals were struck in 1572 by order of Gregory XIII. to perpetuate the memory of the massacre of St Bartholomew's Day; and as the existence of the medal is often strenuously denied, it may be interesting for our Society to possess authentic ones. Perhaps you will have them placed in a case side by side, so as to show both designs."

This medal is described and figured in a work entitled "Numismata Pontificum Romanorum quae a tempore Martini V. usque ad annum MDCXCIX vel autoritate publica vel privato genio in lucem prodier. Explicata a P. Philippo Bonanni Societatis Jesu, Romae MDCXCIX.

(3.) By Mr DAVID BENNET, through Alexander Laing, LL.D., F.S.A. Scot., Newburgh.

Portion of dress found with human skeletons in a moss near Culrain, Ross-shire.

- (4.) By THOMAS MACKENZIE, Esq., Sheriff-Substitute, Dornoch, F.S.A. Scot.

Two portions of dress, part of a shoe of leather, six human teeth, and portion of hair found at the same time as the preceding donation in a moss at Culrain. Several skeletons were discovered in cutting peats, lying irregularly in the moss, and completely clad. The clothing was taken away in fragments by people who came to see the place, attracted by the rumour of the discovery. The pieces now recovered are three small fragments of cloth of different texture, none of them exceeding 3 inches square. The cloth appears to be woollen and coarse linen, well woven, and not greatly decayed.

- (5.) By REV. JOHN BROWN, Manse of Kinclaven, Perthshire.

Spindle $13\frac{1}{2}$ inches in length, broken at the end which had the nick for the thread. Three stone whorls, one $1\frac{1}{2}$ inches in diameter, the other two each 1 inch in diameter. The spindle and whorls belonged to an old woman in the parish of Kinclaven, by whom they were formerly used.

- (6.) By DAVID DOUGLAS, Esq., Treasurer.

Silver-gilt Reliquary in the form of a locket, shaped like a Maltese Cross $1\frac{3}{4}$ inches in length and ornamented with engraved patterns of trefoils and quatrefoils, found at Threave Castle, in the parish of Balmaghie, Kirkcudbrightshire.

Leaden Communion Token of the church of Whithorn, 1744. It is oblong and quadrangular in shape, and bears on the one side WHIT. 1744, and on the other M. A. A. D.

- (7.) By Professor DUNS, D.D., Vice-President.

Catalogue of the works of art forming the collection of Robert Napier of West Shandon, Dumbartonshire, mainly compiled by J. C. Robinson, F.S.A. London. Privately printed. 8vo. 1865.

(8.) By Miss MARTHA BROWN of Lanfine.

A Broadside Proclamation by King James II. for apprehending several Traitors and Fugitives, dead or alive, viz.—Sir John Cochrane of Ochiltree; Sir Patrick Home of Polwart; Archibald Campbell, son to the Lord Neil Campbell; Charles and John Campbell, sons of Archibald Campbell; — Pringle of Torwoodlie; Sir Duncan Campbell of Auchinbreck, and others concerned in the rising headed by the Earl of Argyle,—given at Edinburgh 24th June 1685.

Also "A Declaration by the King's Majesty to his subjects of the Kingdomes of Scotland, England, and Ireland" in favour of the Solemn League and Covenant and Work of Reformation. Edinburgh, printed by Evan Tyler, Printer to the King's Most Excellent Majesty, 1650,—a quarto pamphlet of 14 pages.

(9.) By WILLIAM FORBES of Medwyn, Foreign Secretary.

The Works of Sallust, with Essays on the Life of the Historian. By HENRY STEUART, LL.D. Two vols, 4to.

(10.) By THOMAS ELDER HENRY, Esq., Dalkey.

Æneida. By THOMAS E. HENRY, Vol. II. 8vo. 1878.

(11.) By JAMES MILN, Esq., F.S.A. Scot., the Author.

Archæological Researches at Carnac and the Bosseno. Imp. 8vo. 1877.

(12.) By JAMES BURGESS, Esq., the Editor.

The Indian Antiquary. 4to. Parts 52–96. April 1876 to August 1879.

(13.) By Dr R. ANGUS SMITH, F.S.A. Scot., the Author.

Loch Etive and the Sons of Uisneach. 8vo. 1879.

(14.) By the ROYAL UNIVERSITY, Christiania.

Foreningen til Norske Mindesmaerkers Bevaring, Aarsberetning for 1875–77. 8vo.

Norske Oldsager i Fremmede Museer, af Ingvald Undset. 4to. 1878.

Den Norske Traeskjaerkunst, af Dietrichsen. 8vo. 1878.

Diplomatarium Norvegicum. Vol. IX. 8vo.

Norske Rigsregistranter, 1631-37. 8vo.

Norske Bygninger fra Fortiden. Anden Raekke, 8th and 9th Hefts. Folio. 1878.

Runeindskriften paa Ringen i Forsa Kirke. 8vo.

I.

NOTE ON A STONE CROSS IN THE PARISH OF RATHO.

By J. R. FINDLAY, Esq., VICE-PRESIDENT.

The cross represented in the woodcut stands on the junction of three



Slab with incised Cross at Ratho, Mid-Lothian.

(From a Drawing by G. H. Park.)

fields on the ridge to the north of the eastern avenue of Hatton House (see "Proceedings," vol. x. p. 147). The stone is 5 feet in height above ground, about a foot and a half wide, and a foot thick. The figure of the cross occupies the centre of the exposed front of the stone, and is about $4\frac{1}{2}$ feet long; the arms, which are near the centre, spreading across the stone from side to side. The limbs of the cross are peculiarly splayed, with circular indentations at their junctions in the centre. The only markings on the stone or cross are the apparently accidental scratchings figured carefully in the

drawing, and a circular hole near the end of the upper limb, the result of the stone having at one time, within living memory, been used as a gate-post. No tradition or record of any kind attaches to this rather remarkable relic, except that the field in which it stood before the line of the fences was altered was known as "the stane-cross field."

II.

NOTE ON SOME BRONZE WEAPONS, IMPLEMENTS, AND ORNAMENTS.

By R. W. COCHRAN PATRICK, LL.D., F.S.A. Scot.

Before proceeding to describe the articles now exhibited I may be permitted to say a word on the necessity for placing on permanent record as many as possible of the various relics of antiquity found on Scottish soil. No better way of doing this can be suggested than by exhibiting such antiquities at the meetings of the National Society, where their character can be properly determined by competent authorities, and the objects themselves made available for scientific observation by being illustrated and described in the Proceedings.

I conceive that the duty of a National Society of archaeologists is not only to collect and preserve such antiquities as they may acquire in a central museum, important and necessary as that duty may be, but as far as possible to examine and record every find which is known to have taken place.

Local societies can be of scientific use only so far as they feed the National Society with actual specimens and reliable information. In most cases they have not the means themselves to publish the data they may collect, but they could always forward for exhibition here such articles as they have, many of which would prove of interest. In most country houses also there are small collections of local antiquities, the knowledge of which would be of great value to students of Scottish archaeology. In such cases it only requires some one to ask the loan of the articles for exhibition here, a request which would hardly ever be refused.

Undoubtedly the best thing is to get the articles here permanently ; but as this cannot be done with every specimen, the next best thing is to obtain accurate drawings and descriptions of such as cannot be procured, and in this way in process of time a large body of data would be accumulated, from which in future times deductions of real value might be drawn ; for I need hardly say that archaeology in Scotland has suffered from nothing so much as learned dissertations founded on imperfect data. If we are to advance at all in this country we must be content for a time to collect facts.

I would suggest, therefore, that members of the Society living in different parts of the country would confer a great benefit on students of archaeology if they would look about, and bring here for exhibition every native object which is known to exist in their districts, whether in local museums, private collections, or elsewhere. To carry out practically the idea just indicated, I shall lay before the Society the following objects, which are either in my own collection or specially lent by friends for exhibition on this occasion :—

1. *Bronze Sword*.—Length, 26 inches from end of handle. Handle, 3 inches to the broadest part of the blade. Blade, at broadest part, $2\frac{1}{4}$ inches. This specimen (fig. 1), one of the largest recorded, was found in the Island of Skye, and is, unfortunately, broken.

2. *Bronze Rapier Sword or Dagger*.—Length, 15 inches ; $2\frac{1}{4}$ inches across the handle plate. This was discovered many years ago in a peat moss in the parish of Kirkoswald, Ayrshire, and is now the property of Colonel McLachlan of Blair, who kindly permits it to be shown (fig. 2).

3. *Bronze Dagger*.—Length, 7 inches ; 2 inches across the handle plate (fig. 3). Found near Gretna, Dumfriesshire.

4. *Spear-head*.—Simple leaf-shaped. Length, 7 inches. Found in a moss near Stirling.

5. *Bronze Celt*.—Length, $4\frac{1}{4}$ inches by $1\frac{1}{8}$ inch ; $2\frac{1}{2}$ inches across the broadest part. Found in Orkney.

6. *Flanged Celt*.—Length, $5\frac{1}{2}$ inches. Found on the estate of Ladyland, Kilbirnie, Ayrshire.

7. *Socketed Celt*.—Length, $3\frac{1}{2}$ inches. Socket nearly square, and



Fig. 1. Bronze Sword
found in Skye.



Fig. 2. Bronze Rapier
Sword, Kirkoswald.



Fig. 3. Bronze Dagger,
Greta.

ornamented with raised linear ornament consisting of three parallel lines

on the side. This example was found near the town of Maybole, in Ayrshire.

8. *Bronze Pin* or *Brooch*, with ornamented pattern on the head. From Ireland. Length of pin, 6 inches. Head oval; penannular; 3 inches by 2 inches; rudely ornamented with three incised lines.

9. Another *Brooch*, somewhat different in type, showing a different pattern. Length of pin, 5½ inches. Head semi-circular, 2 inches across; rudely ornamented with trefoil pattern. From Ireland.

10. *Bronze Chain*. From Ireland. Links circular, ½ inch in diameter, serpent-like in shape; the tail coming in to the mouth.

Besides the Bronze articles, I have added a few other antiquities from my own collections, some of which may interest the Members either from their well-preserved condition, or from their rarity of type or occurrence.

III.

NOTE ON THE HORN OF A RHINOCEROS STATED TO HAVE BEEN FOUND IN A MARL PIT IN FORFARSHIRE. BY JOHN ALEXANDER SMITH, M.D., SEC. S.A. SCOT.

In my paper on "The Ancient Cattle of Scotland" I referred to the recorded statements in regard to a Horn of a Rhinoceros found in a marl pit of the Loch of Forfar. I need not repeat the details here more than to say, that in 1823 it was presented to the museum of the University here, by Mr Henry Stephens, well known afterwards as the author of the "Book of the Farm"; it was exhibited at the same time to the Wernerian Society by Professor Jameson, and was also afterwards referred to by Professor Fleming, D.D., in his "Remarks illustrative of the Influence of Society on the Distribution of British Animals," published in "The Edinburgh Philosophical Journal" for 1824. I shall therefore simply refer to my account of the horn given in vol. ix. of Proceedings, pp. 636 and 637.

Sir Walter C. Trevelyan, Bart. of Wallington, Northumberland, F.S.A. Scot., some time after the publication of my paper, wrote to the late David Laing, LL.D., on the subject of the Rhinoceros Horn, and subsequently to myself; and as both of these gentlemen are now dead, and Sir Walter knew more about its history than any other person, I have thought it might be worth recording what he had to say as a conclusion to the history of the horn. I delayed doing so at the time, hoping to be able to discover and to add to these notes the account of the horn believed to be given in one of Mr Don's publications, referred to by Sir Walter, but I have as yet not been able to do so.

The following letters tell their own story. The first was addressed to myself, and the second is the one referred to by Mr David Laing; the third letter was afterwards sent to me by Sir W. C. Trevelyan, Bart.

No. 1.

SIGNET LIBRARY,
EDINBURGH, *February 6th, 1875.*

"DEAR DOCTOR,—I only received yesterday the enclosed letter from Sir Walter Trevelyan. It would have been more appropriately addressed to yourself. Should you think it worth while you might either acknowledge it to Sir W. or read it at the next meeting of the Society, to come into the 'Proceedings.'—Yours very truly,

D. LAING."

No. 2.

WALLINGTON, NEWCASTLE-ON-TYNE,
28th January 1875.

"MY DEAR SIR,—I have been much interested with the paper of Dr J. A. Smith on the 'Ancient Cattle of Scotland,' in the 'Proceedings of the Society of Antiquaries of Scotland,' vol. ix. p. 587. In reading it I find notice of 'A Horn of a Rhinoceros,' "found in one of the marl pits at the Loch of Forfar." As I many years ago (in 1825) went to Forfar and

Dundee, especially to investigate the history of that horn, it may interest Dr Smith and some of the members of the Society to know the result of my enquiries, in the course of which I had interviews with almost all the persons through whose hands the horn had passed, after the time of David Don (the first individual who is recorded to have had it in his possession) down to Mr Stevens, who gave it to the museum of the University of Edinburgh.

"At Dundee, in my way to Forfar, I called on *Mr Douglas Gardner*, formerly keeper of the museum at Forfar, who received the horn from Don, and deposited it in the museum, where it remained until the sale of that museum in 1818 or 1819, when the horn was bought by Mr Brown of Dundee (a cousin of the celebrated botanist Robert Brown) whom I also saw. He gave it to *Mr Stephens*, of Balmadies, near Forfar (author of 'The Book of the Farm'). When at Forfar, I called on Mr S. at Balmadies, and he informed me that he had taken the deposition of Alexander Nevay, of Forfar, one of Don's servants, who had known the horn in his master's possession for many years, and who gave the same account of its being commonly understood to have been found in a Loch near Forfar.

"I did not, however, succeed in meeting with any person who could say that he knew it as a fact, or otherwise than by hearsay,—and from all I could learn, I could come to no other conclusion than that there was no satisfactory evidence to establish the fact that it had been found, as stated, in a marl pit near Forfar.—I remain, My Dear Sir, Yours very truly,

"W. C. TREVELYAN.

"P.S.—I have been told that its discovery in the Loch of Garth is mentioned in some small publication of Don's,—which however I have never yet been able to find, perhaps you might be more fortunate in the centre of Scotch literature.

"When I was at Forfar I learnt that the Loch of Garth had been drained a few years before, and that there never had been any marle or marle pits in it."

No. 3.

WALLINGTON, NEWCASTLE-ON-TYNE,
23rd March 1875.

"DEAR SIR,—I am glad you have found my notes about the Forfar *Rhinoceros* horn interesting, and shall be happy that you should make what use of them you think serviceable.

"Were I to see the two horns in the Museum (and I will, when I visit Edinburgh, endeavour to do so), I think I should be able to point out that which was said to have been found in Forfar Loch; but I may say that the impression made on my mind by the enquiries I made, were that the evidence was not sufficient to *establish* the fact; I did not meet with one of the individuals who had possessed the horn, or who knew it, who could say that he recollected more about its discovery, than that Don *said* that it had been dug up in one of the marle pits:—if it really had been so, I should have expected that other *less perishable* parts of the skeleton, or the *teeth*, would have been sooner or later discovered, but I believe such has not been the case.

"Near a seaport, such as Dundee, or Arbroath, such an object is a very likely thing to have been brought home by a sailor, and afterwards to have passed from hand to hand till it reached Forfar, where it may have easily got mixed up with bones, &c., really found in those pits,—and have been confounded with them. It would be interesting and perhaps of importance to settle the question, if you could meet with the printed *pamphlet* or *paper* of Don, in which he mentions the *horn* (as I was told) having been found in the marle. Is there anything about it in Sir J. Sinclair's 'Statistical Account of Scotland'?—Believe me, Dear Sir, Yours faithfully,

W. C. TREVELYAN."

Some time after I received these letters, I met Sir Walter C. Trevelyan in Edinburgh, and he informed me that he had now, as I had suggested to him, examined the different horns of the *Rhinoceros* in the "Museum of Science and Art," to which the old "Natural History Museum of the University" had been transferred, and that I was quite

correct in fixing upon the "small pointed and much weathered horn in that Museum as the one presented to the University Museum by Mr Henry Stephens in 1823." "It measures about 7 inches in height along the front slope of the horn, and about 5½ inches in the longest diameter of its oval base" (*loc. cit.* p. 638). There is no reference to the horn in the Rev. Mr Bruce's account of the Parish of Forfar in Sir J. Sinclair's Statistical Account of Scotland.

To the courtesy of the Director of the Museum, Mr Archer, F.S.A. Scot., I am indebted for being able to exhibit this now almost historical specimen.

IV.

NOTICE OF ANCIENT CELTIC BELLS AT GLENLYON, FORTINGALL,
AND INCH. BY JOSEPH ANDERSON, ASSIST. SEC. AND KEEPER OF
THE MUSEUM.

Glenlyon.—Until recently but one bell of the flat-sided form used in the early Celtic church was known in Glenlyon, viz., the iron bell of Cladh Bhrennu, an ancient burying-ground beside the farm-house of Kerrumore. This bell has stood in the burying-ground unprotected for centuries. It is now, however, enclosed in a niche in the wall of the cemetery, and placed under lock and key. As it has never been noticed in the Proceedings of the Society, I take this opportunity of placing it on record in connection with the recent discovery of two other bells of the same form and character which have been preserved in the same district, though hitherto unknown.

The fact that a group of three of these bells exists in this district, shows that it was in early times an important locality in connection with the history of the early church, and we find accordingly that the great althane or territory of the Abbey of Dull extended over both the parishes of Dull and Fortingall, embracing the whole of the valley of Glenlyon. The foundation of the monastery of Dull is attributed to St Adamnan, who died in the beginning of the 8th century. The chapel which stood in the old cemetery of Cladh Bhrennu has long disappeared, and its dedication is unknown. In a charter by Hugh, Bishop of Dunkeld, confirming to the

canons of St Andrews the church of Dull and the chapel at Fossach, he exempts the chapel of Branboth, in Glenlyon. The name appears at a later date in the obits of the "Chronicle of Fortingall" as Branwo. Mr Charles Stewart states that the tradition of the glen ascribes the building of the chapel to the M'Dougals of Lorn, and the dedication to their special saint, Brandan. But there is nothing more authentic than the slender similarity of the name to back this tradition, and I therefore leave the attribution of the bell to St Brandan as an open question.

Fortingall.—I am indebted to the Rev. J. B. Mackenzie of Kenmore, a Fellow of the Society, for the photographs of the Bell of Fortingall now exhibited. The existence of this bell was first made known to me by the Rev. Mr M'Lean of Grantully, when on a visit to the museum in the course of last summer; and the Rev. Mr M'Kenzie, to whom I mentioned it, kindly offered at once to send me photographs and measurements of it. This he did in September last, and I quote from his letter the following account of the bell:—He says, "I herewith send you photographs of the Fortingall Bell. It is roughly oval in shape, and measures 6 by $7\frac{3}{4}$ inches across the mouth, and 9 inches high. It seems to me to be of iron dipped in melted bronze, if such a thing be possible. I have secured for you a small piece of the metal of which it is composed. The handle is in two pieces, soldered together. The bell is rivetted up the sides. Its history I have not ascertained yet. I only know that it has for long been in the church, and for the last two generations in the manse, but through time I may be able to learn its traditional history."

A small portion of the metal bronze-like coating of the bell has been analysed by Mr W. Ivison Macadam, F.C.S., Lecturer on Chemistry, with the following results:—

Average of Two Analyses.									
Iron,	.	.	.	.	.	.	.	.	47.69
Copper,	.	.	.	.	.	.	.	.	45.98
Tin,	.	.	.	.	.	.	.	.	3.42
Siliceous Matter,	.	.	.	.	.	.	.	.	2.89
									99.98

The siliceous matter is probably derived from the soil. Deducting this, the following average results are obtained :—

	Average of Two Analyses.
Iron,	49.11
Copper,	47.35
Tin,	3.51
	99.97

The bell appears to be composed of an inner layer of iron, coated on both surfaces with bronze.

W. IVISON MACADAM, F.C.S.,
Lecturer on Chemistry.

Mr Charles Stewart of Tigh'n Duin, Killin, who has given much attention to the ecclesiastical antiquities of his native district, is of opinion that the church of Fortingall was dedicated to St Cedd. He therefore concludes that this may be his bell. Bishop Forbes in his Calendar, under St Machute (who was a disciple of St Brandan), says that "Some think that he is the Saint Mochoat of the 9th August, who is known by the fair of the Feil Macoit at Logierait on 22d August, and also that "Leith's true Almanack" for 1707 gives St Machead's Day at Kirktown of Fortingall on the 9th of August. The day of St Cedd however was January 7, and that of his brother Chad, March 2. It is difficult to understand why there should be a series of dedications to these Northumbrian saints in this neighbourhood. It has been conjectured that there is a commemoration of St Cuthbert at Weem, and the Irish life of the saint seems so far to countenance the supposition when it says, that—"After St Cuthbert had arrived in Scottish land he began to dwell in different parts of the country, and coming to a town called Dul, forsook the world and became a solitary." "Not more than a mile from Dul" (says the same record) "there is in the woods a high and steep mountain called Doil weme, and on its summit he began to lead a solitary life." Such details as these can scarcely be founded on as fixing the locality of the events narrated, even supposing that it was certain that the events themselves had actually occurred. But there is no such ground for the connection of the brothers Cedd and Chad with

Glenlyon, and the dedication of the church of Fortingall may be a later one to St Catherine. I am informed by Mr W. F. Skene that the old fair at Fortingall, called *Feile Ceilt*, was held on the first Tuesday of December.¹ But while it may be impossible to determine the older



The Bell of Fortingall (9 in. high).

Bell found at Balnahanait (7 in. wide).

dedication, there can be no doubt of the authenticity of the bell, which is one of the most characteristic specimens of these interesting relics of the Celtic church.

¹ Many years ago, when such information was more easily obtained than it is now, Mr Skene was at great pains to ascertain the dates of the several fairs in Athole, and has favoured me with the following note of them, which it may be useful to preserve :—Strowan, *Feile Phaolan*, 9th January ; Blair, *Feil Brùl*, 12th February ; Kilmaveonag, *Feil Espag Eoin*, 1st Wednesday of September ; Lude, *Feil Seumas* ; Dull, *Feil Eoinne*, 6th October ; Foss, *Feil Phadrick*, 17th March ; *Feil Maghaugh*, 5th February ; Fortingall, *Feile Ceilt*, 1st Tuesday of December ; Logierait, *Feil Mairi*, 22d August.

The bell now exhibited is the third bell of the Glenlyon group. A notice of it having appeared in the "Scotsman" in October last, I wrote to the Rev. Mr M'Kenzie, and through his good offices the bell was immediately forwarded by Mr Charles Stewart, the writer of the notice, for exhibition to the Society. At my request he drew up a short statement of the circumstances connected with the discovery of the bell which is as follows :—

"In writing to the 'Scotsman' as to the finding of this bell, I stated that it was found in a field, but in doing so I either misunderstood Mr Stewart of Balnahanait, or he made an oversight. I now give you the circumstances in which it was found. In consequence of a request on my part, and an expectation which I had led them to entertain (founded partly on the meaning of the name Balnahanait) Mr Robert Stewart the farmer, and his nephew Duncan Stewart, who lived with him, were on the outlook for antiquities connected with the ancient faith. In the month of August 1870 the latter found this bell betwixt the wall and the eaves of an old cart shed at Balnahanait. In consequence of what I had told them, it occurred to him that it was a relic of the kind which he had been led to expect, or else he might have paid no attention to it. The bell was handed to me by Mr Robert Stewart, and I now send it for exhibition to the Society."

Mr Stewart inclines to the belief that this bell may be St Eonan's. There was a fair held at Dull on St Eonan's Day, and till a very recent period the mill at Balvoulin Eonan, in Glenlyon, always stopped work on the saint's day. But Mr Stewart states that he has difficulty in accepting the common view that this St Eonan is Adamnan, because the day of the fair (6th October) is not Adamnan's Day, which was September 23, and the tradition of the glen is that St Eonan died at Balvoulin Eonan and was buried at Dull, which we know was not the case with Adamnan. I am not inclined to consider these objections insuperable however. Allowing for the difference of old and new style, and the disturbing influence of modern changes of market days to prevent them from interfering with

each other, the day is not far off the proper time, and no other Eonan has ever been known to dispute with Adamnan the numerous dedications under that name in Scotland.

Healing Stones of St Fillan.—Mr Stewart has also sent me an account of the healing-stones of St Fillan, which are still preserved in a niche of the wall of the mill at Killin. It is stated that such a niche has been always made in the wall of the new mill which succeeded the old, down to the present day; and Mr Stewart states that not very long ago the villagers assembled on the saint's day and put clean straw under the stones. They were considered to be efficacious in cases of insanity and rheumatism. Mr Stewart describes them as common stones taken from the bed of the river. They are hard quartzose boulders, the largest weighing 8 lbs. 10 oz. There are seven or eight of them. What specially interested me in them was the statement of Mr Stewart that some of them had shallow rounded cavities or markings on them, which are wider at the surface of the stone and grow narrower to the bottom. I exhibit a rough sketch of two of them which Mr Stewart has sent me, and from all that I can make out, without seeing the stones themselves, believe that those that are so marked are merely the socket stones in which the spindle of the upper millstone used to work before the introduction of the improved machinery. We have a number of these in the museum, and I exhibit two of them, to show how closely they agree in character with the description given of the healing-stones of St Fillan.

Inch.—The bell, which is preserved at the old Church of Inch, near Kingussie, is of cast bronze, closely resembling in form and appearance the bell of St Fillan of Glendochart. It was seen some years ago by Captain Thomas, and it was from his notes of its size and appearance that I first became aware of its existence. Through the kindness of the Rev. S. R. Macphail I have been favoured with a drawing of the bell (by Mr Galloway Macdonald) from which the accompanying woodcut has been engraved.

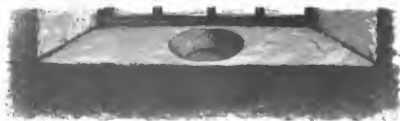
The bell is 10 inches high, exclusive of the handle, and 8 inches by 5 inches along the edges of the rim at the bottom. The handle

is $3\frac{3}{4}$ inches wide and $1\frac{1}{2}$ inches high. The second drawing shows the sole of the window on which the bell stands, in which there is a



Bronze Bell at Inch, near Kingussie (11 $\frac{1}{2}$ inches high).

curious basin-shaped hollow which may have been the font of the early church. The slab which now forms the window-sole is of granite, and



Slab with basin-shaped hollow, in window-sill of Church at Inch.

the basin-shaped hollow is 17 inches wide at the mouth, narrowing somewhat to the bottom, and 4 inches deep.

V.

NOTES ON AN URN FOUND AT KENNYSHILLOCK, URQUHART, ELGIN,
NOW PRESENTED TO THE MUSEUM, AND ON A BULLET-MOULD
OF STONE, LENT FOR EXHIBITION BY MR J. MACDONALD,
DUNPHAIL. BY JAMES MORRISON, URQUHART, CORR. MEM. S.A. SCOT.

1. URN.—In vol. ix. page 260 of the Proceedings there is a brief notice of a cairn partially explored in May 1871. It was about 8 yards in diameter, and being cut across from west to east, a grave 5 feet deep was discovered, 2 yards within the circumference on the east side. In the bottom of the grave there lay on its side a well-shaped urn, now in the possession of Canon Greenwell. The moor has been ploughed up during the past summer, and the farmer carted away the remains of the cairn. In doing this he came upon another grave of the same depth as the former one, but more oval in shape. On removing the large stones which filled the grave, a rude cist resting on a sandy bottom was exposed, covered over with flattish boulders. It was 4 feet in length by 2 feet in breadth, and was constructed of six rough sandstone flags, two on each side, and one at each end. From the surface downwards, and very thickly in the bottom, there was abundance of wood ashes and charred fragments of oak, but no trace of bones of any kind. In the south-east corner of the cist, which lay north and south, the urn now presented to the museum, was found, leaning inwards. It was entire when discovered, but broke in being lifted out. All the parts are preserved, and can be put together. The piece of flint was in the cist amid the ashes, most



Urn from a Cist at Kennysillock
(5 inches high).

probably placed there ere the grave was filled up, though it is possible it may have fallen in from the surface during the exploration. It is thought that another grave of the same character exists in the cairn. This will be ascertained by and by, and the result intimated to the Society. It will be seen in the volume of the Proceedings referred to, that the district around the cairn is rich in remains, and has yielded some rare and valuable flint and stone implements.

2. BULLET MOULD.—The mould is the property of Mr J. Macdonald, gamekeeper to Lord Thurlow, Dunphail, and he has sent me the following statement regarding it:—"The Rev. Charles Farquharson was a native of Braemar. He died Nov. 30, 1799, nearly 90 years of age. I believe he made the mould when a young man in Braemar. My grandmother was his niece, and got the mould along with other things belonging to the priest. Her husband, my grandfather, Donald Macdonald, my father, Donald Macdonald, and my brother Donald, all had it before me, I being the fourth Macdonald that has had it. James Farquharson of Balmoral, who was out at the head of the Mar men in 1745-46, was brother to Father Charles as they called him. There were lots of the bullets fired at the battles of Falkirk, Prestonpans, and Culloden, made in that mould. I have in good preservation Balmoral's sword,—a Highland one of course. It is said that Prince Charles made some bullets in the mould for his pistol."

The mould is of hard claystone, $5\frac{1}{4}$ inches in length, $2\frac{1}{2}$ inches in breadth, and $1\frac{1}{2}$ inch in thickness. It consists of two parts, which fit together and are kept in position by dowells of lead answering to corresponding holes in the stone. Both sides of each half of the mould are hollowed into cavities for casting shot of various sizes from $\frac{1}{4}$ to $\frac{3}{4}$ inch diameter. The number of different sized bullets that can be cast in it is thirty-seven.

MONDAY, 9th February, 1880.

JOHN R. FINDLAY, Esq., Vice-President, in the Chair.

A ballot having been taken, the following Gentlemen were duly elected Fellows :—

EDWARD GORELL BAXTER, Esq. of Teasses, Fife.

WILLIAM COLBECK DYSON, Batley, Yorkshire.

GEORGE HAMILTON, Esq., Sheriff Clerk, Kirkcudbright.

Hon. W. A. RICHARDSON, LL.D., Judge of Court of Claims, Washington, U.S.

WILLIAM ROBSON, Esq., S.S.C., Marchholm, Edinburgh.

GEORGE A. PANTON, Esq., 12 Osborne Terrace.

GEORGE HARRISON PARK, Esq., 6 Shandwick Place.

The following Donations to the Museum were laid on the table, and thanks voted to the Donor :—

(1.) By the Rev. GEORGE WILSON, Free Church, Glenluce, Corr. Mem. S.A. Scot :—

A Collection consisting of the following articles, which are described in detail in the subsequent communication by Rev. Mr Wilson :—

Stone Hammer, perforated, one side straight, the other curved inwards from opposite the haft-hole, from High Clare, Mochrum.

An elongated Sandstone Pebble, with circular central hollows wrought on both faces, from Gillespie, Glenluce.

An Arrow-head, leaf-shaped, *not* of Flint.

A Set of Flint Implements, namely, from Klachsiant and Torrs :—
Two elongated Spokeshave Scrapers; two flat Scrapers, with concave edge; one Scraper, concave on one edge and convex on the other; two slender trimmed Implements of a very rare type; one Flake, much worn, High Torrs, Glenluce. 18th April 1879.

Stone Hammer, perforated, one side straight, the other curved inwards from opposite the haft-hole (presented through Mr WILSON by Mr M'CAIG, Farmer at Low Mye, Stoneykirk).

One Bronze Needle, imperfect, $1\frac{1}{4}$ inch long, High Torrs, Glenluce 23d September 1878.

One Bronze Pin, with quadrangular head, $2\frac{3}{4}$ inches long, High Torrs Glenluce. 14th April 1879.

Three Bronze Pins without heads.

A Bronze object like a Pendant, looped at one side, the first reported.

A Fragment riveted by a flat piece of Bronze like a paper fastener.

A Portion of a Bell, elliptical in section, with open angular handle, from Clachisiant, Stoneykirk. 27th March 1879. All the others from Torrs, Glenluce.

Object of coarse Blue Glass, perforated with five irregular rays, from Knockdoon, Glenluce. 10th April 1879. Very rare.

A small Clay Urn, from Craighenhollie, Glenluce.

There were also exhibited :—

(1.) By Mr ROBERT GLEN.

A Collection of Water-colour Drawings, by himself, of ancient Musical Instruments. (In illustration of his communication on the Ancient Musical Instruments of Scotland.)

(2.) By R. B. ARMSTRONG, Esq., F.S.A. Scot.

A Series of Drawings of Clackmannan Tower, and Earlsall.

(3.) By the Right Hon. the EARL of STAIR, through Rev. GEORGE WILSON, Glenluce.

Stone Hammer, perforated, from Machernmore, Glenluce ; Cylindrical Stone Implement, with indented circular hollows on each face, from Mull of Sunness, Glenluce ; Flat Bronze Celt or Axe-head from Innermessan, Inch ; Flat Bronze Celt or Axe-head and two Socketed Bronze Celts from Knockandmaise, Leswalt.

[These are described in the subsequent Paper by Rev. George Wilson.]

- (4.) By Sir HERBERT MAXWELL, Bart. of Monreith, through Rev. GEORGE WILSON, Glenluce.

Leaf-shaped Bronze Sword from Monreith ; Bronze Spear-head from Fell of Barhullion, Glasserton.

[See the subsequent Communication by Rev. George Wilson].

- (5.) By Mr M'KEAND, Newton-Stewart, through Rev. G. WILSON, Glenluce.

Socketed Bronze Celt found at High Knockglass, Portpatrick. (See the figure of this Celt on p. 134).

- (6.) By JOHN DOUGLAS, M.D., Whithorn, through Rev. G. WILSON, Glenluce.

Two Stone Implements, with central hollows, from Glasserton.

- (7.) By Rev. JAMES BEGG, D.D.

Collection of Bones of the Moa from New Zealand.

The following Communications were read :—

I.

NOTES ON THE ANCIENT MUSICAL INSTRUMENTS OF SCOTLAND.
 WITH ILLUSTRATIVE DRAWINGS. BY MR ROBERT GLEN. Com-
 MUNICATED BY GEORGE G. CUNNINGHAM, Esq., F.S.A. Scot.

I intend, with the kind permission of the Society, to give a short account of some ancient Musical Instruments, including some of those mentioned in the "*Houlate*," a Manuscript Poem of the 15th century. As considerable doubts exist as to other names of instruments of music there mentioned, owing to change of nomenclature, I shall not refer to them. This is the passage I allude to :—

" All thus our lady thai lovit with lyking and list
 Menstralis and Musicians mo than I mene may,
 The Psaltry, the Sitholis, the soft Sytharist,
 The Croude, and the Monycordis, the Gythirnis gay,
 The Rote and the Recordour, the Ributhie, the Rist,
 The Trumpe, and the Talburn, the Tynpane, but tray
 The Liltpye and the Lnte, the Fydill in fist,
 The Dulset and Dulsacordis, the Schalme of Assay,
 The anyable Organis vsit full oft
 Clarionis lowde knellis,
 Portativis and Bellis
 Cymbaclanis in the cellis
 That soundis so soft."

Houlate, Stanza 59, fol. 224, vi.

Horns.—I shall begin with horns, which are presumably the most primitive, as they are to be found in an all but ready-made state almost everywhere. Bamboos, conch shells, human bones, the tusk of the elephant, and the horns of various animals, can all be turned, with trifling assistance from art, into trumpets; and history confirms what might have been conjectured, for the trumpet has been in universal use from the remotest ages of which we have any record. The trumpet was a sacred instrument with the Jews; but that peculiar people are not peculiar in that respect.

In China the Buddhist priests use conch shells in their religious services. Amongst some of the aboriginal tribes of America, the trumpet was believed to possess mysterious and magical powers. Some tribes near the Orinoco have an instrument called the *Botuto*, on which they imagine the Great Spirit himself occasionally performs. It is held in deep veneration. Fruit and strong drink are placed beside it, and it is blown under the palm trees to make them prolific. Women are not permitted to see this marvellous instrument, and if one chanced by ill-luck to catch a glance of it, she is put to death without mercy. The *Botuto* is made of baked clay, is commonly from 3 to 4 feet long, has two or three bulb-like expansions on the tube, and the sound is said to be terrific. The Indians on the Rio Branco, a tributary of the Rio Negro, in South America, have a mysterious trumpet called the *Juruparis*, or devil, which is much revered. It is kept concealed in the bed of a stream, deep in the forest, and no one dare drink of, or bathe in, the sanctified water. As in the case of the *Botuto*, it is death for any woman to see the *Juruparis*. The Mexicans used conch trumpets in their religious ceremonies. The wizards in certain parts of Africa (according to Capt. Speke) have trumpets, made of the small horns of the antelope and gazelle, suspended from their necks, that they may be ready on the shortest notice to give a blast to attract or drive away the rain clouds according to the wishes of their customers.

But none of the supernatural powers attributed to the trumpet in ages and countries the widest apart, are more wonderful and unaccountable than a property which the instrument actually exhibits. One would imagine *a priori* that, by shaping the lips and modulating the breath, any scale could be produced within the compass of the instrument; but such is not the fact. It has a mysterious disposition and will of its own, and will only yield four notes in the octave; and if the breath is increased the sound leaps from concord to discord, and disdains the intermediate gradations. It is equally extraordinary that there should be a correspondence between the notes of the trumpet and the vibrations of a string. Various plans have been adopted to overcome this stubborn imperfection of the trumpet.

The horn was used by the Scots to transmit signals of war, and sometimes to delude the foe. Barbour mentions that—"When the Scottis folk were about to decamp, they blew their horns and made fires bright and braid, to make their 'auld enemies' believe they were to maintain their position." Froissart complains of the uproar that occurred in the Scottish camp from the blowing of horns on the night before the battle of Otterburn in 1388. Probably many of the horns used then and long afterwards were those of cattle. Angels blowing cows' horns are to be seen on tombstones erected during the 17th century in Pencaitland churchyard, East Lothian, which seems to show that instruments of that primitive sort were more familiar to the people then than metallic trumpets. Only one ancient bronze trumpet has been found in Scotland, namely, the Caprington Horn, which was discovered in 1640, although large numbers have been found in the peat bogs of Ireland. The only musical instrument referred to by Barbour is the horn, and from his description we see that distinguishing calls could be blown upon it. James of Douglas and Sir Robert Boyd recognised the Bruce from his blast on the horn. Cochrane, the favourite of James III., had a hunting horn mounted with gold, and having a precious stone set in the middle, hanging round his neck by a chain of gold, when he was seized at Lauder. In 1503 James IV. had six trumpeters in his service, all clothed in red and yellow. In the 17th century the city of Edinburgh had one or more trumpeters.

Bag-piper.—Nature, when she bestowed upon man the faculty of looking "before and after," seems, as though in the spirit of contradiction, to have taken every pains to baffle the curiosity she had implanted in him, and to have made it next to impossible for him to acquire full and accurate information concerning anything. We thirst for knowledge, but we are mocked on all sides by a mirage. Words float down to us upon the current of time, but they have lost their meaning, and are like empty bottles from which the spirit has evaporated. Employed originally in a specific sense, they have subsequently come to be used in a generic sense, and thus have lost their primary significance.

But for this, amongst other reasons, one might have been able to trace the history of the bag-pipe up to Tubal Cain, as well as to a remote period in our own annals. The scriptural word *Nevel* has been a bone of contention to the learned—some thinking that it meant a bag-pipe, others that a lute was the true interpretation. The word *chorus*, an instrument mentioned by St Jerome as belonging to the ancient synagogue, has also put the learned at variance. That the bag-pipe was known to the Romans is proved by a coin of Nero, on which the instrument is represented. That emperor is said to have been himself a performer on the bag-pipe, for the worst of men have some redeeming point in their characters.

The bag-pipe, although it is now regarded as the national instrument of Scotland, or the Highland portion of it, was at one time popular in all parts of Europe. Figures—angelic, human, diabolical, and bestial—playing on the bag-pipes are to be seen sculptured on ancient churches in England as well as in Scotland. A bag-piper is also represented cut in marble in the cathedral of Upsal, in Sweden. In a woodcut of the “Nativity,” by Albrecht Durer, one of the shepherds is playing on a bag-pipe; and in a grotesque cut by that great artist, the devil is represented as performing on the same instrument, which is made to resemble the head of Luther. There is, moreover, another engraving by Durer, of date 1514, of a bag-piper, whose instrument is similar to the Scottish bag-pipe of the present day.

The bag-pipe seems to have been a favourite instrument with the English. Chaucer's miller played upon it.

“A bag-pipe well could he blowe and sowne.”

New College, Oxford, received from William of Wykeham, in 1403, a beautiful silver-gilt Crozier, set with precious stones, having an angel playing the bag-pipe among other figures embellishing it. Grotesque bag-pipes are carved on the stalls of Henry VII.'s Chapel, at Westminster, and at Beverley, in Yorkshire. In the fine old song written in the

reign of James I., we are told the old English gentleman had a good old custom when Christmas was come—

“To call in his old neighbours with bag-pipe and drum.”

Shakespeare makes several allusions to it. He talks of “the drone of a Lincolnshire bag-pipe;” and of the strange fellows who “laugh like parrots at a bag-piper.” He also mentions those unhappily constituted individuals, who—

“When the bag-pipe sings f’ the nose
Cannot contain their urine,”

very probably the reason that many people express a dislike to the instrument at the present day.

At what period the bag-pipe was introduced into Scotland it is impossible to say. A piper is carved on Melrose Abbey, which was founded in 1136; but the carving is of later date than the edifice. It is notable that Barbour makes no reference to the bag-pipes, but negative evidence is of no great value. Taylor, the water poet, is also silent on the subject, although he was in the Highlands, and wrote an account of his trip, when the bag-pipe was in all its glory there. Shakespeare makes no allusion to tobacco, although one would have supposed that its recent introduction would have excited his notice.

In 1362, as we see from the Exchequer Rolls, a payment of 40s. was made to the king’s pipers.

James I. of Scotland, who was assassinated in 1436, refers to the bag-pipe in his “Peblis to the Play”—

“The bag pype blew and they outhrew
Out of the townis untald,
Lord, sic ane schout was thame amang
Quhen their were owre the wald.”

And again—

“With that Will Swane come sueitand out,
Ane meikle miller man,
Gif I sall dance have done, lat se
Blaw up the bag-pyp than.”

Dunbar grumbles that the city minstrels of Edinburgh can only play two tunes, viz.—“The Day Daws” and “Into June,”—the former, now called “Scots Wha Hae,” being still a favourite air on the bag-pipe.

Burns mentions that it was a universal tradition in his time, that Bruce’s army at Bannockburn was led to “Hey tutti taite,” another name for that air; but Joseph Ritson, in his notes, says horns are the only instruments mentioned by Barbour, and that it could not be played on them. He also states that there was no probability that Bruce had a single piper, an inference which must now be of little value, since it has been discovered that Bruce’s son had pipers.

John Knox, in his “History of the Reformation,” says that the image of St Giles having been cast into the North Loch, another was borrowed from the Greyfriars for a procession in honour of his anniversary, led by the Queen Regent, and accompanied by bag-pipers and other musicians. This was in 1556.

Bag-pipers seem to have been persecuted with especial severity after the Reformation. In 1570 three pipers in St Andrews were admonished to keep the Sabbath holy, then to attend sermon, and on Wednesday; also, to abstain from playing on the streets after supper or during the night. The Privy Council at Stirling had a complaint of various outrages committed at Neilson by William Stewart, who *inter alia* brought “into the Kirk yard tua or three pypires, and thereby drew a grit nowmer of people to dans befor the Kirk dur in tyme of prayeris, he being alwayis the ring-leader himself.” In the year 1591 and 1593 George Bennet, piper in the Water of Leith, and James Brakenrig, engaged to abstain from playing on the bag-pipe on Sunday. In 1595 and 1596 Thomas Cairns, piper in the same village, was rebuked for playing and dancing on Sunday. William Aikin in Braid also pledged himself “never to prophane the Sabbath day in playing with the pipes.” James Clark in 1624 was fined 20s. “for having an pyper into his house in tyme of sermon upoun the Lord his Sabbath.” The bag-pipes were looked upon as the favourite instrument of the fiend himself; and some unhappy women, burned for sorcery at Borrowstounness in the year 1679, were accused of

meeting Satan and other witches "at the Croce of Murestane, above Kinneil, where they all danced, and the devil acted as piper." The same personage, in the shape of a dog—a "towsy tyke, black, grim, and large"—also performed at a dance on the Pentland Hills. The belief that the bag-pipes are somehow connected with impiety is not yet altogether extinct, especially in some Highland parishes. In a letter which appeared recently in the "Scotsman," it was said that "a few officious individuals have set themselves up to be the judges of what is right and wrong in Highland parishes, and the exercise of their powers is becoming such that a young man learning to play the bag-pipes lays himself open to exclusion from church privileges."

Pipers formed part of the municipal institutions of every large and many small towns in Scotland, and in some burghs, such as Jedburgh, the office was hereditary, and continued in the same family for centuries. They received a livery and small salary, and had sometimes a small piece of land.

At what date the bag-pipe was introduced into the Highlands there is no evidence to show; but it certainly found a Highland welcome, and must have felt more at home than anywhere else. Dr Leyden, in his introduction to the "Complaynte," quotes from the Bannatyne MS. an unpublished poem by Alex. Hume, minister of Logie in 1598, on the defeat of the Armada, the lines—

"Caus nichtelie the weirlic nottes breike
On Heiland pipes, Scottes and Hybernike,"

which shows that the bag-pipe had not only come into use in the Highlands, but it had assumed a distinctive character. Here it may be proper to mention that the Highland, Lowland, and original Northumbrian pipes, although they differ in external appearance and in the method of inflation, are essentially the same, the chanter being alike in all three, and the scale being a form of the diatonic.

The writer of this possesses a set of bag-pipes bearing the date 1409. This instrument has only two small drones and chanter. Bag-pipe in



Set of Highland Bag-pipes, bearing date 1409.
(The property of Mr Glen.)

this country previous to the beginning of last century had no large or bass drone. The two drones are inserted in one stock or joint, that holds them to the bag, which is formed of a forked branch of a tree, the fork giving the drones the proper spread for the shoulder. Carved on the stock are the date MCCCCIX. and the letters R. M'D., along with a representation of a lymphad or galley, such as is seen on the sculptured crosses of the West Highlands. On the reverse side is to be seen a triple floriated knot, and on the upper parts of the fork are two carved bands of interlaced work near to the metal ferrules. The lower joint of one of the drones is ornamented in the centre with a carved band in the same style; the corresponding joint of the other drone is not original.

The head-pieces of both drones at the top are cup-shaped, and have each three bands of interlaced work,—two on the joint, and one near the ferrule at the head.

The chanter at the head, and at the lower or bell end, is finely ornamented in harmony with the carving on the other parts, and is also studded with nails round the edge of the bell. It has been repaired with two brass bands and the same number of string ligatures.

The blow-pipe is quite modern, the original having been lost. The ferrules are of bronze, and are highly ornamented in the Celtic style. Four of them have been wanting, and replaced by brass ones.

The wood of which these pipes are made is to all appearance that of the thorn, and in respect of measurement they are much the same as those of the present day. The bag and cover are matters of no importance, as those articles soon wear out and must be renewed. The instrument on the whole has an aged and battered appearance, and the finger-holes on the chanter are very much worn.

Pipers were attached to the retinue of every Highland chief, and the office was hereditary. The duties of the piper were important and multifarious. He had to cheer the clansmen on the march, and rouse their courage and lead the van into battle. In peace he gave life and merriment to the wedding, and in wild wailing notes expressed the general woe at a funeral.

If the Gael cannot claim the credit of inventing the bag-pipe, he can at least boast that he has made it his own by inventing a style of execution which has turned the imperfections of the instrument into beauties, and has composed a rich and varied stock of music specially adapted for it, and that cannot be properly performed on any other instrument.

Harps.—It is probable that the Hebrews played upon the harp, although it has been questioned whether the word which has been translated *harp* in the English version of the Bible really refers to that instrument. The Egyptians possessed several sorts of harps, some of which were beautifully formed and ornamented. The Assyrians also possessed the harp, as we know from the bas-reliefs disinterred near the town of Mosul in Asiatic Turkey. The harp was used by the Greeks (as is proved by one represented on a vase in the Munich Museum), although it does not appear to have been a favourite instrument with them. It was popular amongst the Persians in the olden time, as is proved by sculptures near the town of Kermanshah, said to have been executed in the 6th century. The Arabs adopted the Persian harp in the 7th century. The Irish and the Welsh were famous for their performance on the harp, and are said to have possessed that instrument from a remote antiquity. There is a harp in Trinity College, Dublin, which is said to have belonged to Brian Boru, who ascended the Irish throne in 1001 (see the story in the "Ulster Journal," vol. vii.) But there is evidence on the instrument itself which disproves the assumption. Armorial bearings, which were not in use in Ireland until the 14th century, as well as the Gothic letters L.H.S., which were also unknown in the 11th century, are carved upon it. With greater show of reason this harp is said to have belonged to the O'Neills, who flourished in the 14th century, and whose arms it bears. The writer of this paper had an opportunity of examining this interesting relic in 1878, and found that the current descriptions of it, which state that the soundboard is of oak, are inaccurate. The body of the instrument is made of one piece of *redally* wood, which has been dug out from the back, and the back is inserted.

Two antique harps, of the same type and probably of as great an age, are described by John Gunn in his "Historical Enquiry on the Harp in Scotland from the earliest times," 1807. One called the "Caledonian," and the other the "Queen Mary," were in the possession of Col. Robertson of Lude, and are now deposited in a lumber-room somewhere in Perthshire. It would be well if the Society could obtain even a loan of these instruments, so that the greatest care might be taken of their preservation. The "Caledonian" is said to have come into the possession of the family of Robertson in 1460.

Irish harpers, it is said, were in the habit of visiting Scotland from the 6th down to the 18th century. A sculptured figure playing a small harp has been discovered on a cross at Ullard, in the county of Kilkenny, in Ireland, which is said to date from a period anterior to 800 A.D.

The harp was a favourite instrument in Scotland. In the Highlands it was called *Clarsach*. The fact is attested both by authentic history and sculptured remains. It is represented on a sculptured stone at Nigg, in Ross-shire, which may be earlier than the 10th century. It is also to be seen on a cross at Auldbar, Forfarshire, and on Dupplin Cross, in Perthshire. King James I., was celebrated for his skill as a harper. The clarsach is mentioned in the "Houlate," written about the middle of the 15th century. About the end of that period payments were made to Irish, English, and Highland harpers, for performing to the king. Private families at that time kept their harper as well as bag-piper. The last native harper in Scotland is commonly allowed to have been Munloch Macdonald, who was a retainer of MacLean of Coll, and is believed to have died in 1739. He was partly educated by MacLeod of MacLeod's harper, and partly in Ireland.

The Lute.—The lute was at one time held in the highest estimation. It was extensively cultivated in Europe, and nowhere was it more familiarly known than in Scotland. Of its invention or introduction we know nothing. In the year 1474 a lutenist was attached to the royal household, and subsequently several are mentioned in the Treasurer's

Accounts. These musicians, it seems, were sent to Bruges to "learn their craft." In 1562 players on the lute received red and white taffety to be coats, and hose, and bonnets. In 1502 private families had luters in their establishments.

The Scottish monarchs themselves cultivated the lute. Disbursements for lutes to James IV. and to James V. are entered in the Treasurer's Accounts. It seems to have been an instrument which the attendants at court could perform on. David Lindsay mentions in his rhyme that the infant king ordered him "to play upon the Lute;" and a present of a lute which cost fifty-six shillings was made to John Barbour in 1540. During the 17th century the lute was very common throughout the greater part of Europe.

Originally the lute had eight thin cat-gut strings arranged in four pairs, each pair being tuned in unison, so that its open strings produced four tones. In the course of time more strings were added. During the 17th century the lute had twenty-four strings. The order of tones varied in different countries and periods.

There has been an immense improvement in the construction of musical instruments in modern times; but some consider that what has been gained in one respect has been lost in another—that various instruments in being perfected have lost their peculiar character of tone, and become too much alike, and have withal been divested of much of their beauty of appearance.

II.

NOTICE OF A COLLECTION OF IMPLEMENTS OF STONE AND BRONZE, NOW PRESENTED TO THE MUSEUM, AND EXHIBITED TO THE MEETING, AND OTHER ANTIQUITIES FROM WIGTONSHIRE. BY REV. GEORGE WILSON, GLENLUCE, CORR. MEM. S.A. SCOT.

1. *Perforated Stone Hammers or Axe Hammers* of a peculiar type, of which there is only one specimen in the Museum, from Silvermine, Torphichen, having one side nearly straight and the other curved inward from opposite the haft-hole to the edge. Three have been found in this district:—



Fig. 1. Stone Axe Hammer, Machermore (1)

(1st.) A reddish grey sandstone (fig. 1) from Drumwhill Hill, Machermore, Old Luce, $6\frac{1}{2} \times 3\frac{3}{4} \times 3\frac{1}{4}$ inches; diameter of haft-hole nearly 2 inches at the upper side, $2\frac{1}{2}$ at the lower, and $1\frac{5}{8}$ at the middle; its centre nearest the cutting edge, which is much worn, especially at the lower side, the whole surface looking as if it had been ground.

(2d.) A dark grey sandstone, $9 \times 4\frac{1}{2} \times 4$ inches behind haft-hole and 3 at edge; diameter of haft-hole at surface $2\frac{1}{2}$, and at middle $1\frac{1}{2}$ inches; its centre $3\frac{1}{4}$ inches from the butt, at which the stone seems to have been from the first defective on the curved side. It was found along with a smaller one on a small hill at the side of Mye Loch, Stoneykirk.

(3d.) A coarse micaceous sandstone from High Clone, Mochrum, $8\frac{1}{4} \times 4 \times 3$ inches, the haft-hole not bored truly, its diameter $1\frac{1}{2}$ inch at the surface and 1 at the middle, its centre 3 inches from the butt; the edge half an inch thick at the sharpest part, and most worn at the lower side. These implements look as if shaped for some special purpose.

Through the kindness of a correspondent I exhibit a hammer from the neighbourhood of Wigtown, of a yellowish claystone, $5\frac{3}{4} \times 3\frac{3}{4} \times 2\frac{3}{4}$ inches;

diameter of haft-hole $1\frac{1}{2}$ inch at surface and $1\frac{1}{4}$ at middle, its centre $2\frac{3}{4}$ inches from the butt, which is rounded and is $2\frac{1}{8}$ inches in width and $1\frac{1}{4}$ in depth; edge somewhat convex, a good deal damaged, with two chip marks on one side not quite ground out; faces slightly concave both lengthwise and across; sides much rounded, especially toward the butt; the whole surface ground smooth.

2. I exhibit a large stone implement, in which the process of boring the haft-hole seems only to have been begun and left unfinished. It is a flattened cylindrical grey sandstone with rounded ends, $11\frac{1}{4} \times 5 \times 4$ inches, with circular hollows wrought in the centre of each face, $1\frac{7}{8}$ inch in diameter and $\frac{1}{2}$ inch in depth on one face, and $1\frac{1}{4} \times \frac{5}{8}$ inch on the other.

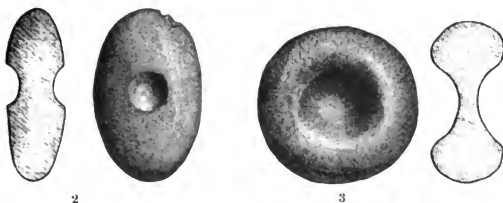


Fig. 2. Oval Implement, Gillespie ($\frac{1}{4}$). Fig. 3. Circular Implement, Galdenoch ($\frac{1}{4}$).

Most of the polished surface is weathered off, and one part is blackened by fire. It was ploughed up at the edge of a small cairn, near what was the southern margin of the Loch of Sunonness, Old Luce, long since drained away, in which there was a lake dwelling of a curious type, described by me in the Proceedings, vol. x. p. 738.

3. *Stone Implements with circular Central Hollows wrought on each face.*—These are of two types, elongated and oval, approaching a circular form, and I wish to direct attention to them, because as yet only eight have been reported in Scotland, seven of them being from Wigtonshire. Of the *elongated* type there are three; one from Gillespie, Old Luce (fig. 2),

is a water-worn pebble of lightish grey fine-grained sandstone, $4 \times 2\frac{3}{4} \times 1\frac{1}{2}$ inches, with smoothly ground circular hollows on each face, 1 inch in diameter and nearly $\frac{1}{2}$ inch in depth, their centre being $\frac{1}{8}$ inch nearer the upper end of the stone, the lower end, next the least curved side, bearing marks as if it had been used for hammering. A coarser grained pebble with similar marks of use was found in a field at High Mark, Leswalt, measuring $3\frac{1}{2} \times 2\frac{5}{8} \times 1\frac{3}{4}$ inches, with central smoothly ground hollows $1\frac{1}{8}$ inch in diameter and nearly $\frac{1}{2}$ inch in depth. In the Museum (wall-case B. 228), there is an oblong sandstone pebble from Dunning, measuring $3\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{3}{4}$ inches, with circular hollows wrought on each of its flat sides, not so elliptical in outline as these Wigtonshire specimens, but much rounded at the angles.

Of the *circular* or *oval* type there are five, two of which have shallow, and the others deep hollows. In vol xi. p. 583, there is an engraving



Fig. 4. Oval Implement from Machermore ($\frac{1}{2}$).

of a pebble of granite, water-worn and finely polished, $3\frac{1}{2} \times 2\frac{3}{4} \times 1\frac{1}{2}$ inches, with smoothly ground central hollows $1\frac{1}{8}$ inch in diameter on one face, 1 inch on the other, and $\frac{1}{2}$ inch in depth. It was presented to the Museum, through me, by Mr James McHarrie, blacksmith, Fordhouse, whose little girl found it among the shingle when the water was low, close to a small crannog in Machermore Loch, Old Luce. It bears no marks of use as a hammer. Through the kindness of John Douglas, Esq., M.D., Whithorn, I am able to exhibit another very like it, of grey granite

from Garrerie, Glasserton, $3\frac{1}{4} \times 2\frac{7}{8} \times 1\frac{1}{2}$ inches, the central hollow on one face $1\frac{1}{8} \times \frac{1}{2}$ inch, that on the other face $1 \times \frac{1}{8}$ inch. On one side it is somewhat levelled as if worn by use. Dr Douglas exhibits another from Glasserton, of grey sandstone, $4 \times 3\frac{3}{4} \times 1\frac{3}{4}$ inches; the hollows central, one

measuring $\frac{5}{8} \times \frac{5}{8}$ and the other $\frac{1}{2} \times \frac{1}{2}$ inch; the edge all round much bruised, many of the marks being recent. In 1862 the late Rev. Thomas B. Bell, Free Church, Leswalt, presented to the Museum a coarse-grained pebble of grey sandstone (fig. 3) from Moor of Galdenoch, Leswalt, with deep cup-like smoothly wrought central hollows.¹ It measures $3 \times 1\frac{3}{4}$ inches, the hollows $\frac{1}{2}$ inch in diameter and $\frac{1}{2}$ inch in depth. I have one found in 1877 in a ploughed field at Gillespie, Old Luce, a pebble of fine-grained grey sandstone, $2\frac{1}{2} \times 2\frac{1}{4} \times \frac{7}{8}$ inches; the hollows central, smoothly wrought, $1\frac{1}{4} \times \frac{1}{4}$ inch. Neither of these has any marks of use.

These implements are not uncommon in Ireland, some specimens being in the Museum, while they appear to be rare in England and France. They seem to be not uncommon in Scandinavia, where they are called *tillhuggersteen* or hammer-stones. Some of them are very handy when grasped by the hollows with the thumb and middle finger and the forefinger resting on the top, and some of them bear marks of use as if for hammering. But others are not so handy, owing to the narrowness and depth of the wrought hollows, and several bear no marks of such use. Perhaps those last described represent a distinct type of implement.

4. *Stone Arrow-head, not of Flint*.—I found at High Torrs, Glenluce, a leaf-shaped *arrow-head*, neatly trimmed all round the edge on both faces, measuring $1\frac{1}{4} \times \frac{5}{8} \times \frac{1}{2}$ inch. It is *not made of flint*, but of the same material as some of the broken imperforate stone axes found near the same spot. It is the first of the kind reported in Scotland.

5. *Flint Implements*.—A *Spokeshave Scraper* of elongated type, $2\frac{1}{4} \times \frac{7}{8} \times \frac{1}{4}$ inches, from Klachsiant, Stoneykirk; another, $2\frac{1}{2} \times \frac{3}{4} \times \frac{1}{4}$ inches from High Torrs, Glenluce.

Of the flat type with concave edge, one measures $1\frac{3}{8} \times 1 \times \frac{1}{4}$ inch; another $1 \times \frac{3}{4} \times \frac{5}{8}$ inch; a third with one edge concave and the other convex, measures $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ inch. A *flaker*, $2 \times \frac{5}{8} \times \frac{1}{2}$ inch, the edges much bruised by use. All from High Torrs. A slender implement, trimmed along the back, measures, $1\frac{1}{2} \times \frac{3}{4} \times \frac{1}{8}$ inch; another, trimmed on both

¹ Proc. Soc. Antiq. Scot. vol. iv. p. 440; quoted by Evans, "Stone Implements," p. 215.

back and edge, measures $\frac{7}{8} \times \frac{3}{16} \times \frac{1}{16}$ inch. These implements have been observed only at Glenluce, where eight or nine have been found.

IMPLEMENTS, &c., OF BRONZE.

1. *Axe-Heads*.—Thirteen have been reported, several of which are now exhibited, five being flat, five flanged, and three socketed.

(1st.) Of the *flat* type, one from Moss of Cree, Penninghame (fig. 5), presented to the Museum in 1782 by Messrs Brydon and Baillie,¹ is narrower in proportion to its length than any of the others, measuring



Fig. 5. Flat Bronze Celt, Moss of Cree ($\frac{1}{2}$). Fig. 6. Flat Bronze Celt, Knockandmaize ($\frac{1}{2}$).

$5 \times 2 \times \frac{3}{8}$ inches; edge lunate, side slightly concave behind the edge and tapering to the butt, which is 1 inch broad; slightly convex and sharp; the surface a good deal wasted. Another, found in a marsh near the farm-house of Knockandmaize, Leswalt (fig. 6), and now the property of

¹ Proc. Soc. Antiq. Scot. vol. v. p. 26; and Catalogue, 1876, p. 89.

the Right Honourable the Earl of Stair, measures $5\frac{1}{4} \times 3 \times \frac{3}{8}$ inches; edge slightly damaged, lunate, and bevelled on both faces $\frac{7}{8}$ inch; sides flat, slightly concave behind edge; butt *flat*, $1\frac{5}{8}$ inch broad and $\frac{1}{8}$ inch thick. Mr David Vance carpenter, Whithorn, has presented to the Museum, through the Rev. Archibald Stewart, D.D., of Glasserton, a fine specimen, ploughed up in a field at Barrachau, Mochrum, in 1873, measuring $6 \times 3 \times \frac{1}{2}$ inches; edge lunate, sides slightly concave behind it, flat; the butt $1\frac{3}{4}$ inch broad and slightly rounded. The surface, which was brighter when I first saw it, is curiously marked in some places, as if finely scratched by a graving tool.

The Earl of Stair has another, bearing marks of use, found at Innermessan, Inch, measuring $6\frac{3}{8} \times 3\frac{5}{8} \times \frac{1}{4}$ inches; edge lunate, and bevelled about $\frac{5}{16}$ inch on both faces; sides flat, concave behind edge, and tapering to the butt, which is $1\frac{1}{4}$ inch broad, convex and sharp. There is a very fine specimen of this type in the Museum, from Kevans, Sorbie,¹ presented in 1856 by Mr Gavin Ralston, measuring $4\frac{3}{4} \times 2\frac{1}{2} \times \frac{1}{2}$ inches; edge lunate, sides concave behind it, and flat; butt convex, sharp, $\frac{3}{4}$ inch broad.

The faces are ornamented across the centre with rows of punch marks.

(2d.) *Flanged Axe-heads, or Palstaves*.—Wm. M'Ilwraith, Esq., formerly editor of the "Free Press," Stranraer, and now in Queensland, got one in a foundry at Stranraer with the cutting end broken off, $3\frac{3}{8} \times 22\frac{7}{8} \times 1\frac{3}{8}$ inches, with the hollows for the haft-head comparatively narrow, and the flanges broad. Sir Herbert Maxwell, Bart. of Monreith, has one about 6 inches long, found on the Fell of Barhullion, Glasserton. In 1875 three fine specimens were found lying within a foot of each other, in deepening a ditch where the Pilrooty Burn drains what has been a morass or small



Fig. 7. Flat Celt, Innermessan ($\frac{1}{4}$).

¹ Proc. Soc. Antiq. Scot. vol. ii. p. 307; and Catalogue, p. 88.

loch, on the south side of Balcarry Farm, Old Luce. They were presented to the British Museum by Vice-Admiral Sir John C. Dalrymple



Fig. 8. Bronze Palstave, Balcarry 31.

Hay, Bart., and are described, two of them with engravings, in a paper by me in vol. ii. of the "Collections of the Ayrshire and Wigtownshire Archaeo-

logical Association." The largest (fig. 8) measures $7\frac{1}{4} \times 2\frac{1}{4} \times 1\frac{5}{8}$ inches ; the next, $6\frac{3}{8} \times 2\frac{3}{8} \times 1\frac{5}{8}$ inches ; and the least (fig. 9) and finest, $5\frac{1}{4} \times 2 \times 1\frac{1}{4}$ inches, and all have the flanges slightly recurved. I may mention a similar find of three stone axes, imperforate, and all of the same material,



Fig. 9. Bronze Palstave, Balcarry (1).

in Colvend parish, Kirkcudbright, now the property of Mr Gilchrist Clark of Speddoch. Perhaps we may fairly infer from such finds, that both in the Stone and Bronze Age a man sometimes used a set of axes of different sizes.

(3d) *Socketed Axe-heads.* One from the neighbourhood of High Knock.



Fig. 10. Socketed Axe-head, Knockglass ($\frac{1}{2}$).



Fig. 11. Socketed Axe-head, Knockanraze ($\frac{1}{3}$).

glass, Portpatrick (fig. 10), presented to the Mechanic's Institute, Newton-Stewart, by Mr J. McKeand, manufacturer there, measures $2\frac{7}{8} \times 2\frac{1}{8} \times 1\frac{3}{8}$ inches; the socket, $1\frac{3}{8}$ inch in its diameter parallel with the edge, and $1\frac{1}{4}$ inch in its cross diameter outside, and $1\frac{1}{8} \times 1$ inch inside; its depth 2 inches; the socket is rounded, with a slight ridge at its rim, which is damaged, and another about $\frac{1}{4}$ inch lower at the top of the loop; the loop opening $\frac{3}{8} \times \frac{1}{8}$ inch; the sides are rounded and have a central mould ridge. There is another in the same Institute, from Innermessan, Inch, of the same type, but a little longer, with a single ridge, round it, but above the loop. A very beautiful specimen, the property of the Earl of Stair (fig. 11), found at Knockandmaize, Leswalt, in a peat moss near the March of Dundinnie, measures $5\frac{1}{4} \times 2\frac{5}{8} \times 1\frac{7}{8}$ inches; diameter of socket parallel with edge $1\frac{5}{8} \times 1\frac{5}{8}$ inch on the outside, and $1\frac{1}{4} \times 1\frac{1}{8}$ inch inside; depth, 4 inches. Edge lunate, socket rounded, with a large rounded moulding at the rim, and a smaller one at the upper end of the loop. The loop is $\frac{1}{2} \times \frac{5}{16}$ inch inside and $\frac{7}{8} \times \frac{1}{2}$ inch outside, on which it slopes up to the central mould ridge. It curves slightly outward at the top where it joins the moulding round the socket, and more prominently at the lower end, where it runs quite across the side. The sides and faces meet in a distinct angle. On each face there is a slightly relieved ornament of circles joined by lines. On one face a circular figure on a line with the loop opening is joined to two exactly like it, 1 inch from the edge, by two slight ridges $2\frac{1}{8}$ inches long, which start $\frac{1}{2}$ inch apart, from the lower segment of the upper figure, and terminate, $\frac{3}{4}$ inch apart, at the top of the lower figures. Each of these figures consists of a small central knob surrounded by two rings, the inner nearly $\frac{1}{4}$ inch and the outer $\frac{7}{16}$ inch in diameter. The other face has a circular ornament at the top, but not quite so high up, and three others below, in a row across it, 1 inch from the edge. They are exactly like those on the opposite face in form and size, except that the middle one below has a central hollow instead of a knob. The upper figure is joined to the middle lower one by a straight ridge, on each side of which a ridge runs, with a very slight curve at the lower end, into the segment of the outer circles

next the middle one. They are nearly $\frac{1}{8}$ inch from the central ridge at the top, and $\frac{1}{4}$ inch at the bottom. At $\frac{1}{4}$ inch outside of these two ridges two others start from the outer part of the top segment of the two outer circles, and run up in a curve parallel to the line of the axe side, till they pass the circle at the top and meet above it in a slightly curved line. Dr Evans kindly informs me that an axe of similar type, from Kingston, Surrey, in the British Museum, will be engraved in his forthcoming work on "Bronzes."



Fig. 12. Bronze Dagger, Whiteleys.



Fig. 13. Bronze Dagger, Mid Torts ($\frac{1}{3}$).

2. *Daggers*.—(1st.) A *Bronze Broad Dagger-blade* was found in 1866 in a peat moss on the farm of Whiteleys, Inch, and presented to the Museum

by Mr Simon Hunter, the tenant. It is engraved in vol. viii. p. 423, and the "Catalogue," pp. 95-96. It measures $12\frac{1}{2} \times 4\frac{3}{4} \times 1$ inches, being broadest and thickest at the haft-end, and weighs $1\frac{7}{8}$ lb. The tang to which the haft has been attached is 3 inches broad and 2 inches long, rounded off at the upper part, and has four rivet holes, with the bronze rivets, 1 inch long and fully $\frac{3}{8}$ inch thick, remaining in them. The blade is fluted by a ridge and furrow ornament running from near the point almost to the tang, following the outline of the edges, and dividing it at half its length into four equal breadths.

(2d.) *A Bronze Knife-dugger, with thin triangular-shaped blade*, was found at Mid Torrs, Glenluce, and presented by me to the Museum in 1876.¹ It is 3 inches long by $1\frac{1}{4}$ inch wide at the butt. The point is broken, and the tang is a good deal wasted, but still bears the mark of the haft. The blade is two edged, and is slightly bevelled at the edges. Only ten daggers of this type are known in Scotland, of which this is the ninth, described in an elaborate paper by Mr Anderson.² As fragments of urns have been found near the spot where this one was picked up, it is probable that, like all the others, it was deposited with an interment. This form, like that of the tall drinking-cup urn sometimes found with it, seems to be peculiar to Great Britain.

3. *Bronze Spear-heads*.—Two of these have been found in this district. One measures $9\frac{1}{2} \times 2$ inches; from socket to loops, 2 inches long; its greatest diameter $\frac{7}{8}$ inch, and running nearly to the point, with a slight ridge beginning at the broadest part of the blade and becoming most distinct at the point. On each side a channel runs from the point to the loops, bounded by a slight ridge which becomes more marked where it runs on to form the loops, $\frac{3}{16}$ inch from the lower end of the blade. The loop openings are elliptical, sharp at both ends, $\frac{3}{8}$ inch long and $\frac{1}{8}$ inch broad. It was found near the Old Military Road at Merton Hall, Penninghame, became the property of the late James Black, Esq., M.D., of Bolton, latterly of Edinburgh, and is now presented to the Museum by his son, William Black, Surgeon-Major, of

¹ Proc. Soc. Antiq. Scot. vol. xi. p. 587.

² *Ibid.* vol. xii. pp. 439-461.

2 George Square, Edinburgh. The other spear is from the property of Sir Herbert Maxwell, Bart. of Monreith, and was found on the Fell of Barhullion, Glasserton. It measures $15\frac{1}{8} \times 2\frac{1}{8}$ inches, socket to loops $4\frac{1}{8}$ inches long; diameter in plane of blade, outside 1 inch, inside $\frac{3}{8}$ inch; the other diameter, outside $1\frac{1}{8}$ inch, inside $\frac{7}{8}$ inch. The blade is 11



Fig. 14. Bronze Spear-head, Morton Hall (1). Fig. 15. Bronze Spear-head, Barhullion (1).

inches long, widest 7 inches from the point, and has on each side a very shallow channel, the slight boundary ridges becoming more marked toward the haft-end, where they curve outward for $\frac{1}{4}$ inch to form the loops, which are $\frac{3}{8}$ inch long, less than $\frac{1}{8}$ inch wide, and $\frac{3}{8}$ inch from the

end of the blade. It is bent to one side, having been found jammed between two masses of rock.

4. *A leaf-shaped Bronze Sword*, two-edged, imperfect at the hilt, total length $23\frac{3}{8}$ inches, breadth 8 inches from the point $1\frac{3}{4}$, $5\frac{1}{2}$ inches from the hilt 1 inch, and at hilt in front of rivet holes 2 inches, thickness at hilt $\frac{3}{8}$ inch, and near middle of blade where it is broken across $\frac{1}{4}$ inch. A slight narrow ridge runs along near the edge from the widening a little before the hilt to the point, near which it becomes more marked. There are four rivet holes where the handle has been attached, the front pair 1 inch apart, and the other pair $\frac{1}{2}$ inch behind them and $\frac{1}{2}$ inch apart. Where the hilt is broken there is a hollow on each side $\frac{1}{4}$ inch wide. From the broadest to the narrowest part of the hilt it is $1\frac{3}{8}$ inch. This sword is the property of Sir Herbert Maxwell, Bart. of Monreith, but the exact locality in which it was found is unknown.

5. A Bronze Needle, broken at both ends, but with part of the eye remaining. The fragment is $1\frac{1}{4}$ inch long, $\frac{1}{16}$ inch thick, and $\frac{1}{16}$ inch broad at the beginning of the eye. It was found at Torrs, Old Luce.

6. A Bronze Pin, with quadrangular head, length $2\frac{7}{8}$ inches, head $\frac{1}{8}$ inch square, its sides sloping inward for $\frac{1}{8}$ inch with a narrow ring collar dividing it from the body, which is about $\frac{1}{12}$ inch thick, and tapers towards the point, which is blunt. Mr



Fig. 16.
Sword (1).

Fig. 17.
Needle.

Fig. 18.
Bronze Pin (1).

Ivison Macadam furnishes

the following analysis, which shows that it may properly be called bronze :—

Copper	90.24
Tin	9.65
	99.89

“The results prove that the pin is made of an alloy resembling bronze.” In his note accompanying this analysis Mr Macadam says,—“The results show the composition to be such as would warrant the pin being considered as of genuine old manufacture, and not of modern origin.”

In the Museum there are three similar pins, a little larger, from Lis-more. On the sandhills at Glenluce I have found another pin, nearly $2 \times \frac{1}{8}$ inches, quadrangular, blunt at point and flattened at the other end, which perhaps has belonged to a brooch. Another is round, broken at point and slightly tapering, $2\frac{1}{4} \times \frac{1}{8}$ inches, and another is small, finely pointed, $\frac{7}{8}$ inch long.

7. Bronze *Penannular Brooch*, from High Torrs, Old Luce, $\frac{3}{4}$ inch in its longest diameter, and a little less in the direction of the pin, which is wanting. The opening for the pin is formed by two serpent heads, made indistinct by the corrosion of the metal. Presented by me to the Museum of the Society in 1876.¹



Fig. 19.
Small Penannular
Brooch ($\frac{3}{4}$).

8. Bronze object like a Pendant, found near the quadrangular headed pin described above. It is of a cylindrical form somewhat like a dumb-bell, with a loop on one side; length $\frac{1}{2}$ inch, diameter $\frac{3}{8}$ inch, and at middle rather less, round which two ridges $\frac{1}{8}$ inch apart run from the inner sides of the loop opening, which is about $\frac{1}{8}$ inch in diameter, with mould mark inside. In Scandinavia there are similar objects of amber, but I am not aware that this has any connection with them, and it appears to be unique in bronze.



Fig. 20.
Bronze Pendant ($\frac{1}{2}$).

¹ Proc. Soc. Ant. Scot. vol. xi. p. 587.

9. *Looped Bronze Wire*, presented by me in 1876. Two portions of bronze wire looped together and tapering to the other end, where the



Fig. 21. Looped Bronze Wire (½).

largest one is bent in a little, and then straight at the point. I found it at Knockenerunge, Mid Torrs, Glenluce.

10. Fragment with bronze *rivet*, formed of a narrow strip, doubled, put through holes cut in the two pieces of bronze to be joined, with the loop flattened down on the one side and the two ends folded back on the other, exactly like the paper fasteners now in use.

11. Fragment of Bronze Bell from Clachsiant, Stoneykirk, found by my friend, John Thomson, Esq., medical student, 17 Strathearn Place, Edinburgh, when with me on March 27th 1879, at a spot about a mile to the east of the site of Clachsiant church.

OBJECTS OF GLASS.

1. Star-shaped object of a greenish blue vitreous composition, from Knockloun, Glenluce, with five irregular rays, greatest diameter 1 inch, least diameter $\frac{3}{4}$ inch, diameter of central hole $\frac{1}{4}$ inch. I picked it up 10th April 1879. In 1875 I found one about a quarter of a mile farther west in the sandhills of the same material, with nine rays, $1\frac{1}{2}$ inch diameter, central hole $\frac{1}{4}$ inch diameter. It is engraved in vol. xi. p. 587. It is there stated that another was found in Blair-Drummond Moss "almost exactly similar



Fig. 22. Star-shaped Bead (¼).

in form, size, and material, except that it has only six rays. These, however, are the only two examples known." I have much pleasure in presenting a third of these rare and curious objects to the Museum of the Society.

2. A Glass Button, found about forty years ago at Knockandmaize, Leswalt, and now in the possession of the Earl of Stair. It is of blue glass of a sort of dumb-bell form, length $1\frac{1}{4}$ inch, circumference at middle $1\frac{1}{8}$ inch, and at thickest part $2\frac{1}{4}$ inches. One very like it, but smaller, from Ireland, was exhibited at the January meeting by Mr Cochran Patrick.

CLAY URN.

In September 1878 an urn of the type called "food urns" was found in a gravel pit at Craighenhollie, Glenluce, among the gravel which had fallen while the men were absent with their cart. The depth at which it was below the surface is thus unknown, and nothing was observed beside it. It was put in a hole in the drystone dyke till 17th April 1879, when it was brought to me by Mr George Fraser, gamekeeper, part of the edge being lost. It is $3\frac{1}{2}$ inches in diameter, and $3\frac{1}{2}$ inches in height. It is rudely ornamented with zig-zag lines on the outside of the rim.

III.

NOTES ON SOME OLD CUSTOMS IN THE ISLAND OF SKYE. BY
REV. ALEX. M'GREGOR, M.A., AND FORMERLY OF KILMUIR, ISLE OF SKYE.
COMMUNICATED BY ALEXANDER ROSS, Esq., F.S.A. SCOT., INVERNESS.

Since the writer of these notes went to the Isle of Skye, fifty-six years ago, the habits of the natives have been greatly changed. The domestic and agricultural employments of the natives were quite different to what they are now. For example, there were then only three teapots to be found in the whole parish of Kilmuir, except in the few dwellings of large farmers. Tea-drinking was a thing unknown then among the common people, while now the poorest people have that beverage once, if not twice, daily. Loaf or wheaten bread was unknown. I remember, when loaves of bread were made at the Manse for a sacramental occasion, that crowds of females resorted to the minister's house to see the "*aran corneach*," that is, the "foggy or spongy bread;" and, on tasting it, they did not at all like it, because they did not consider it to be so substantial as their own oaten cakes. Now, however, loaf bread is more used by the natives than their own cakes.

Harrow.—It was then quite common to tie the harrow to the long tail of the horse when labouring the fields in spring to cover the sown seed. Such crofters or small tenants as had no horses (and these were the most numerous class), employed their women to perform the work, fastening them to the harrow by the simple harness of a rope made of twisted bents or grass, and placing the rope across their chest. The poor females were in this manner severely toiled, yet they never failed in the work thus allotted to them, as they considered it to be their duty.

Grain dressed for food.—When the fields were ripe in autumn, a family could easily supply oaten meal for their bread or porridge in little more than an hour's time. In order to do this, a female went to the field with her sickle in her hand, and cut down a few sheaves of the standing corn. The next process was to prepare the grain for being

ground into meal. For this purpose, it was taken to a convenient spot at some little distance from the dwelling, where a flat stone or flag had been secured previously for the operation. Placing the sheaves near the flat stone, the woman then set to work by taking up in her left hand a part of a sheaf, and setting fire to the ears of the grain, which were allowed to burn until the grain, thus dried and extricated from the stalks, fell on the flat stone underneath. In her other hand she held a stick, with which she kept constantly beating at the blazing straw, to shake off any part of the grain which did not fall at once when the husks were consumed. When all the sheaves had been in this manner exposed to the flames, the grain was collected and winnowed. The grain thus made ready for the mill was called "gradan," and the meal prepared by it made wholesome and palatable bread; the corn being shorn, dried, dressed, ground, baked, and eaten in little more than an hour's time.

Quern.—It is proper to observe that the mill by which the "gradan" meal was ground, was the "Muileann bradha" or "quern." This simple machine consisted of two circular stones about 26 inches diameter, the lower one of which was generally fixed in a frame of wood raised nearly breast high. The upper stone was so fitted and balanced as to revolve with ease on the lower one, when impelled by a peg fastened into its upper surface, near the outer rim, to turn it round. Grinding with the "quern" was always left to the females, two of whom would be engaged at it at the same time,—the one feeding it with the grain, the other causing the stone to revolve, and both uniting in chanting a native melody, corresponding in time with the working of the machine.

Although this primitive kind of mill was formerly in general use over all the Highlands of Scotland, it is remarkable how rarely the remnants of these "querns" are now to be met with either in Skye or among the Hebrides. When we consider that almost every family had its "quern," the stones of these primitive grinders might naturally be expected to be numerous, but, in reality, they are now rarely to be met with. No doubt the curiosity hunters have taken many of them away, but this does not altogether account for their scarcity.

Pot and Clar.—A little more than half a century ago the domestic or culinary utensils of the Hebrideans were of the rudest description. For example, the potatoes prepared for the family meal were boiled in a large pot, perhaps the only one in the house, and the fish or herrings were placed in the pot over the potatoes, and thus cooked. Plates and dishes of all kinds were very rare, but instead, they used a square board about 18 inches on the side, with a frame of 3 inches deep around it, and into this "clar," or frame, they poured their potatoes and fish, placed it on a rude table, and the family members seated themselves around it to partake of their meal. In many of the poorer dwellings there was only one horn spoon, which was handed from one to another to help themselves in turn. There were but few bowls, cups, or dishes of earthenware, in these humble dwellings, but many of them had wooden caps of various sizes, chiefly procured from the crews of vessels from the Baltic, which they met in calm weather, and from whom they obtained battens and planks of wood, and dishes of the kind mentioned, in lieu of fresh vegetables which they took on board.

Lamps or Cruises.—Their light at night was obtained by the burning of oil in rude lamps which they called "cruisean," and which were made by their blacksmiths. These lamps consisted, as in other parts of Scotland, of two circular iron shells, the one fitting within the other, and tapering to a point, into which the wick, made of the centre portions of rushes, was placed. The lower shell of the "cruisean" had a point that protruded beyond the upper shell to retain the oil that dropped from the burning wick. The oil was dark, like port wine, but thin and good. It was procured from the livers of the different kinds of fish which they caught for family use. On coming home from the sea-beach with creels of fish of all descriptions, the females commenced immediately to gut them, and to throw the livers into an old pot or into a "craggan," until they melted them down into a partially liquid state; they then set the decayed livers on a slow fire to dissolve them completely. In this state they poured off the pure liquid oil, put it into a "craggan," and threw away the refuse. In most cases the vessels con-

taining the manufactured oil, called the "craggan," were made of clay by the people themselves.

Craggans.—The "craggan" was of different sizes, some of them would contain as much as three or four imperial gallons, but generally they were of a smaller size, and made to contain eight or nine quart bottles. The clay of which they were made was not found in every district; it was indeed comparatively rare, but when it was found, the "craggans" were numerous made in the surrounding district.¹ The clay was smooth and plastic, and when required for use was wrought up by the hands for hours together, until it was brought to the consistency of the putty used by glaziers. When in this state, the most skilful and tasteful of the family group commenced to form the "craggan," which they finished in less than two hours' time. The first part of it made was the circular bottom, which, like a circular cake, they placed on a board or flat stone, always supplying themselves from the lump of prepared clay beside them. When the bottom was thus formed, they rapidly built upon it all around the outer edge to the thickness of about one inch, being careful all the time to shape it into the form required. When finished, the article was of course rough and indented with finger marks, but in order to smooth it, they scraped it round and round very gently with a knife to give it a more seemly appearance. The inside of course was left as it was, as there was no access to it. When the vessel was finished it was put into a safe place to dry by the heat of the sun, and was left in that state for perhaps some weeks, until it got perfectly hard. The next process was to place it in the midst of a powerful peat fire in order to burn it, and this step of the manufacture frequently ruined the whole concern, in consequence of the unequal heat breaking or cracking the vessel. The burning made the "craggan" harder and lighter, and quite ready as a receptacle for the family oil.

With the advent of steam communication to the Western Isles, shops commenced to be opened in every district, which were supplied from the

¹ Specimens of Craggans made at Barvas in the island of Lewis are in the Museum, some of which are figured in the Proceedings, vol. ix. p. 205.

South with everything in the modern fashion, and so crockery and earthenware jars of all sorts and sizes were provided in great abundance, and sold or bartered for eggs, rags, dried fish, &c.

After this change, the existence or even the mention of such a rude piece of furniture as a "craggan" would be considered a reflection on the respectability of the household, and consequently the present generation of the people have little or no recollection of these and other utensils used by their forefathers; perhaps the most remarkable fact of all being that hardly a specimen can now be found of the "querns" which were once so common, and are so much more imperishable than the "craggans" and other rude and fragile vessels made use of in olden times.

IV.

NOTE ON SEVEN HIMYARITE SILVER COINS, PRESENTED BY GEORGE HAY, ESQ., PORT SURGEON AT ADEN. BY GEORGE SIM, ESQ., CURATOR OF COINS.

It is only within the last few years that coins of this class have become known in this country. They belong to a recent find, of about 300 in all, at Saana or San'a, in Arabia, and are described (so far as yet possible) and accompanied by a beautiful autotype plate in the "Numismatic Chronicle," New Series, vol. xviii. p. 273, in a paper by Barclay Vincent Head, Esq., of the British Museum, titled "On Himyarite and other Arabian Imitations of Coins of Athens."

The coins now presented being fully described and illustrated by Mr Head, it is here unnecessary to do more than refer to his instructive paper, from which, and to render the coins more interesting and intelligible, the following may be quoted, viz. :—

"From about B.C. 146, the date of the destruction of Corinth, down to about B.C. 88, when Delos was devastated by Menophanes, one of the admirals of Mithradates, a calamity from which the island never recovered, the issue of these Tetradrachms at Athens must have been on an enormous

scale. Two years afterwards, B.C. 86, Athens herself was besieged and taken by Sulla, and the issue of silver money there, if not altogether prohibited, as Mommsen conjectures, was certainly much restricted. The names of the magistrates hitherto inscribed upon them in full were, as some think, at this time superseded by monograms, and the weight of the coin was slightly reduced. These pieces nevertheless continued to be finished with considerable care, many specimens excelling in beauty of execution those of the flourishing time, B.C. 86.

"These, then, supposing them to have been the latest Athenian issue, were the last coins of Athens which could have found their way into the land of the Sabæans; and when some years later they also failed, the kings of Yemen and Hadhramaut, then at the height of their power and glory, were thrown upon their own resources for current coin, and just as, after the fall of the Athenian supremacy in B.C. 412, the scarcity of genuine Athenian money gave rise to the Eastern imitations of the thick coins of the old style which I have already noticed, so now, when Athens again ceased to coin on a large scale, in B.C. 86, a second series of Arab imitations makes its appearance, though this time the prototype is the flat coinage of the later Athenian issues."

For the sake of comparison plaster casts from both the early and later tetradrachms of Athens, are presented with the coins, the later coins, as Mr Head has said, being the prototype of these imitations.

V.

NOTES ON WOODEN TUMBLER LOCKS. By J. ROMILLY ALLEN, Esq.,
C.E., F.S.A. Scot.

The object of the following paper is to describe some ingenious wooden locks, which are still used in remote parts of Scotland at the present day. A few specimens of them are to be found in the Museum of the Society, and it is well that they should receive some passing notice before they share the fate of tinder-boxes and crusies, and become finally extinct. The examples in question belong to the class of tumbler locks, and are especially interesting on this account, as being the oldest kind of lock of which we have any knowledge.

Wooden tumbler locks, differing but little in principle from the Scottish ones, have been used in Egypt, Persia, and other parts of the East for two thousand years at least, and probably longer. Mr A. H. Rhind, in opening the tomb of a Theban dignitary, found one of the passages closed by a massive door, remarkable "from its strength and perfect freshness of all its parts, including two wooden pin locks, of the kind now used in Egypt."¹ The locks mentioned in the Bible² were also probably of this description.

The historical data, however, at our disposal are so exceedingly meagre, and the specimens of early examples so few, that we are compelled to start with the locks as they exist at the present time, and endeavour to trace out the gradual development of the ideas which led to their invention. In working out this theory it must be distinctly understood that the scheme of development followed is not necessarily one which actually *did* take place, but one which *might* have taken place, and is in fact merely an arrangement of ideas, in which the simpler ones take precedence of those which are more complicated.

¹ A. H. Rhind's "Thebes," p. 94.

² Song of Solomon, v. 5 ; Nehemiah, iii. 3 ; Judges, iii. 23-25.

Thus it is assumed that a bolt was invented before a lock, and that a door without bolt, lock, or hinge was the earliest stage of the machine, of which the lock only forms a part.

It is the development of this machine, namely, a door and its fastenings, which we have now to study in order to understand the part which the lock plays in the economy of the whole. A perfect machine has been defined by Prof. F. Reuleaux as "a combination of resistant bodies, so arranged that by their means the forces of Nature can be compelled to do work, *accompanied by certain determinate motions.*"¹ The perfection of a machine in its different stages of development is therefore measured by the *definiteness* of the paths in which its various parts are compelled to move. A perfect machine must, in fact, perform the exact operation it is intended to execute in one particular way, and no other.

And now to apply this test to the machine in question. The earliest form of house door consisted probably of a few rough timbers placed in front of an opening in the wall, so that it could be pushed easily aside and then replaced after exit. A large stone at the bottom, or a bar across the middle, would serve to keep the door shut. A doorway with no trace of a hinge, and with holes on each side of the jambs for the bar in front to be shot into, may be seen at the Tappock of the Tor Wood, and also in some of the other Scottish brochs. When the pivot or hinge was invented the door became a machine, doing work by moving in a definite path. In this form it is found represented in paintings on the walls of tombs at Thebes.²

Instead of the detached bar in front, we now have a bolt fastened to the door itself, and shooting into a cavity formed in the jamb to receive it. The object of the bolt is to cause the door to come to rest in a definite position, *i.e.*, when shut; since this is its normal state. The bolt thus follows as a direct consequence of the hinge (with sliding doors we are not at present concerned). From a mechanical point of view, a door turning truly on a hinge with a hand bolt affixed forms together a perfect machine:

¹ Reuleaux's "Kinematics of Machinery," translated by Prof. Kennedy, p. 35.

² Sir G. Wilkinson's "Egypt," vol. i. p. 353.

for the door is constrained to move in a definite path, and can be brought to rest by means of the bolt in exactly the right place. We now have to consider the question of whether the bolt shall be placed on the outside or the inside of the door. If it is placed on the outside strangers have access to it as well as the owner; whereas if it is placed on the inside it will either be necessary always to have some one left within to open the door, or some means must be devised for moving the bolt from without. The notion of a key, and consequently also a lock, may have originated from the bolt being placed on the inside of the door with a hole through which a stick or looped thong might be pushed in order to move it. A lock, then, may be defined as a bolt sliding in a fixed frame, in such a manner that a special instrument or artifice is required to move it.

The chief varieties of locks as at present known may be divided into the following classes, namely—

1. Puzzle or keyless locks.
2. Barb-bolt locks.
3. Warded locks.
4. Tumbler locks.

Puzzle or Keyless Locks.—Puzzle locks are most frequently keyless, and depend for their security either on having their movable parts concealed by some artifice in the configuration of the exterior or on there being some unknown alteration in the arrangement of the outside parts which will allow the bolt to move. Perhaps an intricately knotted cord is amongst the earliest kinds of puzzle locks. One of this description is mentioned in the Odyssey as being used for fastening a citadel containing treasure. There are puzzle locks also, with keys, where the key hole is concealed by some cunning device in the workmanship of the outside. Sometimes the key itself is a puzzle by having a hidden movable bit which prevents its being inserted into the keyhole. Letter-ring padlocks and dial locks are not properly puzzle locks, but belong to the class of keyless tumbler locks; the tumblers being rings revolving round the bolt, and having letters on the outside by means of which they can be brought into such a position as to free the bolt when the keyword is known. The letter lock is supposed

to have been invented by Cardan, and was improved by M. Regnier, Director of the Musée d'Artillerie at Paris in the seventeenth century, who doubled the rings so as to enable the keyword to be changed. One of these locks is referred to in Beaumont and Fletcher's play of the "Noble Gentleman" thus—

"A cap-case for your linen and your plate, with a strange lock that opens with A·M·E·N." The letter lock is the earliest one in which the permutation principle is introduced. A good example of dial lock, which came from S. Lopham Church, Norfolk, will be found engraved in the "Journal of the Royal Archaeolog. Inst. for 1875," p. 253.

Barb-bolt Locks.—These locks have a spring attached to each side of the bolt, like the barbed head of an arrow, which prevents its being withdrawn until the springs are clipped together by a suitable key. Professor Duns has kindly allowed me to inspect several Japanese examples belonging to this class, which he possesses. In Persia these locks are made in the form of some animal, such as a lion or a horse.

There is a lock constructed on this principle in the Swansea Museum, which was dug up at Oystermouth Castle.

Warded Locks.—The security of a warded lock is made to depend on the number of fixed obstacles or wards placed between the key and the bolt. The object aimed at is to prevent any implement but one of a particular shape being able to get at the bolt so as to move it. This is done both by making the keyhole of special form and having obstructions within the lock which must be passed before the bolt can be got at. The best kind of wards are of a labyrinthine outline (whence the term "key pattern" applied to the Greek fret). But however complicated they may be, the wards themselves afford a means of ascertaining their shape and position, either by inspection or by introducing a blank key coated with wax. A false key or crooked wire is then used for picking. Warded locks date certainly as far back as Roman times, and notwithstanding their extreme insecurity they are still largely used in this country at the present day. The locksmiths of the sixteenth century appear to have wasted an extraordinary amount of ingenuity in increasing

the complication of the wards.¹ Church keys have sometimes wards in the shape of a cross.

Tumbler Locks.—To this latter class belong both the earliest locks of which we have any knowledge, and also the latest and most secure for which patents have been taken out within the last few years. A tumbler (slider, pin, or keeper) is an apparatus for keeping the bolt at rest in a definite position, and in the complete mechanism of a door and its fastenings the tumbler bears the same relation to the bolt that the bolt does to the door; for the bolt prevents the motion of the door and the tumbler fixes the bolt. The idea of a tumbler very likely may have originated in sticking a peg through the bolt to keep it in place when the door was closed. The simplest form of tumbler is that used in the Scottish wooden locks, and consists of a rectangular slider, which moves up and down in a vertical grove cut in the fixed part of the lock, and falls into a notch in the bolt, where it is kept by its weight until released by the key. In the Egyptian locks the tumbler is a circular pin of wood. The Scotch and Egyptian locks are merely bolts fitted with several tumblers, which are lifted by means of a suitable key, thus enabling the bolt to be moved. They may therefore be classified as *multiple tumbler locks*.

The difference between warded and multiple tumbler locks is this: in the former the object aimed at is to place as many obstructions as possible to prevent the key getting at the bolt to move it; whereas in the latter the idea is to present a series of obstacles to the motion of the bolt, which is prevented until they are removed. In multiple tumbler locks, to which class all wooden locks belong, the security depends on the number and position of the tumblers. They are therefore open to the same objection as warded locks, namely, that the tumblers themselves afford a means of ascertaining their number and position either by inspection or by means of a wax mould. These locks might easily be picked with a straight stick and a lump of clay, dough, or other plastic substance, which would take the form of the openings in which the tumblers slide and lift them at the

¹ See "South Kensington Handbooks," Spanish Industrial Art, p. 60. Wards made in the form of Cufic characters.

same time. The weak points of the multiple tumbler locks are—1st, that the lift of all the tumblers is the same; 2d, that although the tumblers require to be lifted to a certain height before the bolt is released, yet if they are raised still higher it makes no difference, and the bolt is just as free as before. Now in the year 1778, on the 31st of October, Mr Barron took out a patent for a tumbler, such that it required to be lifted to a particular height before the bolt could be moved, and if it was lifted the least bit higher the bolt was again detained.¹

Hence, by placing a series of these tumblers side by side, it became possible to have a lock whose security depended not on the number and position of the tumblers, but on the different amounts of motion which it was necessary to impart to each of them before the bolt could be moved.

This is the principle of *permutation tumbler locks*, to which class all the best modern locks belong, but which stage of development was never reached in the wooden locks. In its latest and most improved form a lock consists of a series of movable parts, the arrangement of which can be altered in such a manner by means of the key as to allow the bolt to be thrown. The arrangement of the movable parts must, however, be capable of being changed in a great many different ways, only one of which will allow the bolt to pass. (A lock might be made so that a particular order of sequence must be followed in the movement of the tumblers; at present they are lifted almost simultaneously).

Different kinds of Tumblers.—There are several kinds of tumblers, to all of which the permutation principle is applicable. The chief species are as follows :—

1. The sliding tumbler.
2. The lever tumbler.
3. The revolving tumbler.

Sliding Tumbler Locks.—The Scottish and Egyptian locks belong to this class, as the sliders move up and down in straight lines.

The permutation stage of development appears never to have been

¹ See "Tomlinson on Locks" (Weale's Series), p. 49.

reached in wooden locks, and this principle was first applied to sliding tumblers by Bramah in 1784, just ten years after Barron had applied it to the lever tumbler.¹ Bramah's first model, however, had lever tumblers, but working in a plane at right angles to the face of the lock instead of parallel to it, as in previous locks.² This is mentioned to show that Bramah did not take a lock with sliders (such as the Scottish ones), and improve upon it by applying the permutation principle directly, but got at his invention by a round-about process, thus : he started with Barron's lock, which had permutation levers, altered the plane in which they worked to one at right angles to it, and then substituted sliders for the levers. The latest and most improved slider lock is Yale's American lock, patented January 29, 1861, and January 27, 1865. The tumblers are here as in the Scottish locks arranged in a straight line ; in the Bramah lock they are placed in a circle round the key.

Lever Locks.—In this class the tumbler, instead of moving in a straight groove, is centred on a pin, and moves in an arc of a circle.

The gradual improvements which led up to Barron's great invention of the permutation tumbler in 1774 are as follows :—The early iron locks trusted entirely to wards for their security, and the device for keeping the bolt fixed when it had been thrown consisted of a double notch bellied in the middle, which was made to catch the side of the frame by means of a spring at the top of the bolt. The bolt thus acts as its own tumbler. This is the ordinary and extremely insecure spring lock, still in use. It can always be known by the snapping noise it makes when the bolt is thrown. It can be picked without putting any instrument into the lock, simply by getting a tool round the end of the bolt and pushing it back. The first improvement was to have a tumbler separate from the bolt and centred on a pin of its own. It fell into a notch in the upper side of the bolt, out of which it had to be lifted by means of the key before the bolt could be moved. Barron then introduced an improvement which prevented the tumbler being ineffective when over lifted. This was done by

¹ See "Tomlinson on Locks" (Weale's Series), p. 164.

² *Ibid.* p. 71.

making an H-shaped hole in the middle of the bolt, instead of a notch in the top. He also added a second tumbler in front of the first. The last improvement was to make the H shaped gatings in the tumblers instead of in the bolt, and to transfer the stud from the tumbler to the bolt; the number of the tumblers was also greatly increased, and they were placed one on the top of the other, instead of one in front of the other. Chubb took out his first patent for a lock of this type in February 3, 1818. When this stage had been reached it was supposed that a lock had been obtained, perfect in the sense that the possibility of opening it with any instrument except the proper key depended on chance alone, and that by increasing the number of tumblers, the odds against any one hitting on the right combination of heights for lighting the levers might be made so great as to render picking impossible. In 1851 a rude shock was given to this notion by Mr Hobbs, an American, who succeeded in picking both the Bramah and Chubb lock. His method is known as the tentative one, and depends on the minute imperfections of workmanship which must necessarily exist in even the very best kinds. Pressure is put on the bolt, and the stud thus brought hard against the tumblers, which are then gently lifted one by one, and as soon as the least inequality in the pressure is felt it is known that the stud is opposite the gating of the tumbler which is being tried. The process is repeated for each tumbler, and the bolt can then be thrown. Since 1851 Mr Hobbs, Messrs Chubb, Bramah, and others have introduced improvements, the object of which has been to prevent pressure being applied to the tumblers by the stud on the bolt.

Revolving Tumblers.—These move in a complete circle, as for example in the letter padlock, where the tumblers are rings moving round the bolt. This is just the converse of the Bramah lock, where the bolt plate revolves round the tumblers. The letter padlock is the earliest to which the permutation principle was applied, but being keyless it was soon superseded as soon as it was shown that the principle was applicable to other kinds.

Classification of Locks.

Multiple sliding tumblers.—Scottish and Egyptian wooden locks (1000 B.C.)

Permutation sliding tumblers.—*Bramah* (eighteenth century), *Yale* (nineteenth century).

Permutation lever tumblers.—*Barron* (eighteenth century), *Chubb, Hobbes, &c.* (nineteenth century).

Permutation revolving tumblers.—Letter padlocks (seventeenth century).

Keys.—There are two kinds of keys from a mechanical point of view—1st, sliding keys, which move forwards or sideways in a straight line; 2d, revolving keys, which turn upon a centre. The keys of the Scottish and Egyptian locks belong to the former class.

Having now fully discussed the subject of locks from a general point of view, the rest of the paper will be occupied by a description of the details of the examples illustrated.

The lock shown on fig. 1, which came from North Ronaldsay, Orkney, may be taken as a good typical specimen. It consists of the following combination of fixed and movable parts. In the first place, there is the fixed frame, which is fastened to the outside of the door by means of four stout wooden pins. The shape of the frame will be best understood by the perspective view shown on the diagram. It is a solid block of wood, 1 foot long by $4\frac{1}{2}$ inches broad by 2 inches thick, which is hollowed out to receive the movable parts, thus; four vertical grooves, 1 inch deep and $\frac{1}{2}$ inch wide, are cut to receive the tumblers at equal distances apart. A horizontal groove, 2 inches broad by 1 inch deep, is formed at the bottom of the tumbler grooves, to receive the bolt. There is a second horizontal groove, $1\frac{1}{4}$ inch broad by $\frac{3}{8}$ inch deep, higher up, just large enough to

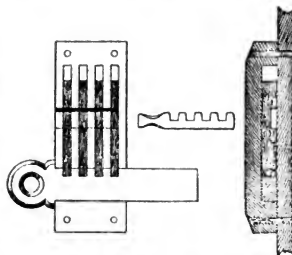


Fig. 1. Wooden Lock, North Ronaldsay.

allow the key to be inserted. Now come the movable parts. The bolt is 1 foot long by 2 inches by 1 inch, and has four notches cut in its upper surface for the ends of the tumblers to fall into. The key is 6 inches long by 1 inch by $\frac{1}{4}$ inch, and has four lifting teeth on the top corresponding to each of the four tumblers. The tumblers are rectangular pieces of wood, 6 inches long by 1 inch by $\frac{1}{2}$ inch, having notches cut in the sides to enable them to be lifted by means of the key.

The working of the lock is as follows :—When the tumblers are resting by their own weight in the notches of the bolt it is impossible to move it. The tumblers are lifted by means of the key, each tooth of which when it is inserted comes just under each one of the notches before described. The key is held with one hand and pushed first forwards as far as it will go, and then moved vertically upwards to the extent of the depth of the teeth of the key (which is equal to the throw of the tumblers). When this has been done the bolt is drawn with the other hand. Thus the Scottish locks require two hands to open them, whereas the Egyptian ones only require one.

The next batch of locks to be described differ from the preceding one in that the lifting teeth of the key project from the side instead of the top.

The rudest of these specimens is one belonging to the Museum (fig. 2), which was brought from St Kilda by Mr Sands. It has two tumblers, apparently shaped with a penknife. The lifting pins on the key are of iron. The following detail should be noticed, namely, that the part of the tumbler, above the lifting notch, is cut away to the extent of the thickness of the key; the object being to prevent the lock being picked by means of a straight stick.

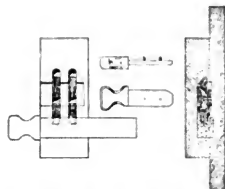


Fig. 2. Wooden Lock, St Kilda.

The next specimen (fig. 3) belongs to Dr Mitchell, who has kindly placed it at the author's disposal, and comes from Harris, in the Hebrides. The

lifting teeth are here also at the side of the key, but they are of wood, and cut out of the solid. In order to prevent picking with a straight stick, instead of cutting away the top of the tumbler, there is a notch next the haft of the key and a corresponding obstruction at the mouth of the keyhole.

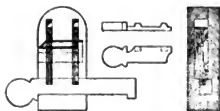


Fig. 3. Wooden Lock, Harris.

The last lock of this type here described (fig. 4) comes from the Faröe Isles, and is now in the Industrial Museum. The author is indebted to the courtesy of Mr Archer, the Director of the Industrial Museum, for being permitted to draw it. It is a very pretty specimen, and has three tumblers. The key is of iron, and lifts from the side.

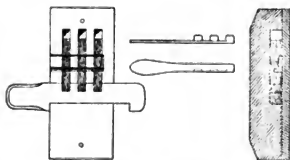


Fig. 4. Wooden Lock, Faröe Isles.

There is still a third type of Scottish wooden lock, which differs from those already described in having double sets of tumblers in place of single ones. Two most ingenious examples of this kind will now be described. The first is in the Museum of this Society, and comes from Snizort, in Skye. It (fig. 5) has six tumblers, working independently of each other, and consists

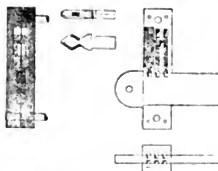


Fig. 5. Wooden Lock, Snizort.

simply of two ordinary locks such as those already described, put face to face, with the bolt placed between them. The key is double, and has a notch next the haft to prevent picking with a straight stick, as previously explained. The keyhole is divided into two by a thin wrought iron plate. This is the only thing approaching a ward which appears in these wooden locks.

The next specimen to be dealt with (fig. 6) is by far the most ingenious and interesting of all. It is the property of Dr Mitchell, and was copied

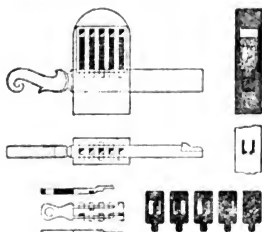


Fig. 6. Wooden Lock, Harris.

from a lock on a door in Harris, Hebrides. The key is double, but the tumblers are single, and are lifted alternately by each limb of the key. The forms of the different parts will be fully understood from the drawings. Each tumbler has two holes in it, one of which is rectangular and the other L-shaped. The

rectangular hole is to allow one side of the key to pass through, in order that it may lift the tumbler beyond. The L-shaped hole is to enable the projecting tooth, on the inside of the key, to catch under the lower part of the L, and lift the tumbler. The key would open the lock just as well if *both* of the holes in the tumblers were L-shaped, but the object of making one of them rectangular is to prevent a key with lifting teeth on the wrong side from opening it. The way in which the key twists at the end so as to get into the hole in the farthest tumbler is worthy of notice, and considerably increases the difficulty of picking.

Having now described the main features of the Scottish wooden locks, two illustrations of Eastern pin-locks will be given for comparison.

The first (fig. 7) was presented to the Industrial Museum by Messrs Chubb, and comes from Egypt.

The fixed frame, which is fastened against the door, consists of a block of wood, $6\frac{1}{2}$ feet long by 2 feet by $1\frac{1}{4}$ feet, with a cross groove cut in it for the bolt to slide in. In the top of this piece are bored three holes to receive the tumblers, which are merely round pins. After the tumblers are inserted the holes are plugged up at the top. The bolt is 11 inches long by 2 inches by $1\frac{1}{4}$ inch, and has three holes into which the tumblers fall. The key hole and key-way are formed by hollowing out the *bolt itself* and in this respect the Eastern lock differs from the Scottish lock and all others. The object of this is that the tumblers may be raised and the bolt drawn simultaneously. The Egyptian has thus the advantage over the Scottish

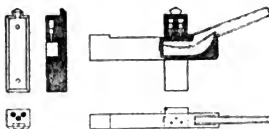


Fig. 7. Wooden Lock, Egypt.

lock that it can be opened with one hand instead of two, and also that the lock can be fastened to the inside of the door, a hole being left through which the hand is thrust. The method of hollowing out the bolt is deserving of notice. It is effected by making two mortise holes, one in the top of the bolt and the other in the side which goes against the door, and joining them. The key is thrust into this hole, and lifts the tumblers by means of three pins. Observe the notch at the back of the key, which helps to steady it and act as a fulcrum for leverage in drawing the bolt.

The second Eastern lock (fig. 8) is a model to a scale made from measurements taken by the author from an original example on the door of a house in a village near Rudbar, on the road between Resht and Kasvin, in Northern Persia. It much resembles the Egyptian lock just described. The key is of slightly different form, and has no notch at the back; the tumblers, two in number, are placed in a mortice hole instead of in circular holes bored from the top and plugged. All the locks in the village re-

ferred to were on the inside of the doors. One example had rectangular tumblers like the Scottish ones, but they were lifted by means of a key

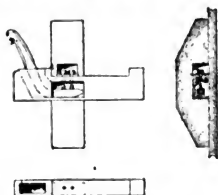


Fig. 8. Wooden Lock, Persia.

with round pins for teeth. The description of the details of these remarkable objects is now concluded, and it may not be out of place to mention that all the drawings have been carefully made from the locks themselves, and that they have never been before illustrated.

The geographical distribution is a point worth considering, and further information on the subject will be gratefully received. The locks with rectangular tumblers are still used in Skye, the Hebrides, Orkney, Shetland, and in the Feroë Isles, and Prof. Tomlinson adds also in Cornwall. The locks with circular pin tumblers are used at the present day in Egypt, Asia Minor, Persia, and Thibet.

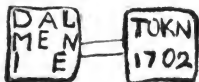
VI.

NOTICE, WITH ANALYSES, OF A SERIES OF CHURCH TOKENS OF VARIOUS PARISHES; OF THE COLLECTION PLATES BELONGING TO THE CHURCH OF DUDDINGSTON AND THE TRINITY COLLEGE CHURCH OF EDINBURGH; AND OF THE TRINITY COLLEGE CHURCH HOSPITAL BELL. BY W. IVISON MACADAM, F.C.S., &c., ANALYTICAL CHEMIST AND LECTURER ON CHEMISTRY, EDINBURGH.

During the study of the chemical composition of ancient metals and alloys, I have obtained a large number of results, some of which I now beg to lay before the Society.

I. *Church Tokens*.—The special subject to which this part of the paper refers is church communion tokens. These tokens are distributed to the congregation, and are handed by them to the elders of the church as a sign of membership. It is now becoming common, especially in large and populous parishes, to give cards instead of metal tokens, and on these cards the member writes his name and address, which enables the minister to make up at convenience the roll of communicants present at each celebration. Tokens are, therefore, rapidly becoming a thing of the past. A very considerable number of these old metal pieces have passed through my hands, including the large and fine collections belonging to the Society, and which are in the Museum.

The oldest form of token consists of a rough and often somewhat irregular square of metal, varying from half an inch to 1 inch in size. The following examples will illustrate this point :—



Dalmeny
(Linlithgow).



Innerkip
(Greenock).



Parton
(Kirkcudbright).

The square form seems to have been almost universally used until about

the year 1740, after which date the corners of the metal were often



Peucaitland
(Haddington).



Selkirk
(Selkirk).



Stevenston
(Irvine).

cut off, the token becoming octagonal or round in form. Besides these



Carnarnock
(Glasgow).



Rutherglen
(Glasgow).



Kilbarchan
(Paisley).

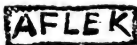


St Cuthbert's
(Edinburgh).



Sorbio
(Wigtown).

more commonly met with styles, other and more complex forms were used.



Afleck (Forfarshire).



South Leith (Edinburgh).



North Leith (Edinburgh).

The lettering and ornamentation on these tokens is in rare instances stamped into the metal with a raised dye, but more usually the inscription



Old Kilpatrick (Dumbarton).

is raised. The metal is generally stamped with the name of the parish to which it belongs, and also the date on which it was issued.



Kilbride (Irvine).



Riccarton (Ayr).



Galston (Ayr).



Fenwick (Irvine).



Beith (Irvine).

Instead of the full name of the church, the initial letters are sometimes used.



Newbattle
(Dalkeith).



Kilpatrick-Durham
(Dumfries).



Duddingston
(Edinburgh).

In rare cases a monogram is inscribed, and occasionally a rebus is used.



Melrose.



Inveresk (Dalkeith).



Duddingston (Edinburgh).

The building to which the token belongs is now and then represented, as well as many other devices, such as the town arms, vines, communion



Biggar, 1769.



Tarbolton (Ayr), 1800.



cups, and texts. The minister of the parish frequently has his name or initials on the reverse side.

The metal of which the earlier tokens were made was lead, and from the year 1700 to 1745 this metal was almost exclusively employed, and until the year 1800 is commonly met with. In the west of Scotland more particularly tin was mixed along with the lead. The tokens made of the mixed metals are in a fair state of preservation, retaining most of the sharp lines. By means of this alloy a more durable and fast impression was obtained than could be hoped for from a soft metal such as lead, and at

the same time the colour is changed from a dull blue to a silver white. The amount of tin employed varied much, as will be seen from the following analyses :—

	Kinross (1747).	Leith, New Kirk (1776).	Kilbarchan (1783).	Edinburgh, Canongate (1813).	Leith, North Kirk (1816).	Kilmalcolm (1819).
Lead . . .	62.74	37.01	19.37	84.71	52.04	46.31
Tin . . .	37.26	62.99	80.63	15.29	47.96	53.69
	100.00	100.00	100.00	100.00	100.00	100.00

The metal tin is sometimes employed alone, but the tokens so obtained are never so sharp in the lines or so finely cut as when an admixture of lead has been worked with.

II. *Duddingston Church Collection Plates*.—The subjects of these plates are (1) Adam and Eve, and (2) the Spies. The first represents Eve giving Adam an apple from the Tree of Knowledge, which is placed in the centre of the device, Adam being on the left hand and Eve on the right. A serpent is twined round the trunk, with its head amongst the branches of the tree. A scroll border surrounds the device. The Spies are shown returning from the land of Canaan with an enormous bunch of grapes, which they carry slung on a stick across their shoulders. The border consists of entwined vines and grapes. Both plates are $13\frac{1}{2}$ inches across, the rim being $1\frac{1}{8}$ inch wide, and are in a good state of preservation, being still regularly employed for church purposes. They were given to the church about the year 1600, and are considered to be of Dutch manufacture, a supposition which is strengthened by the very marked physique of the figures.

The chemical composition of the alloy is as follows :—

Copper	72.62
Zinc	27.34
	99.96

These results agree with the more early and rude methods of preparing brass.

III. *Trinity College Church Plates*.—There are three plates belonging to this church, two being old and one recent. One of the first named bears the inscription, "DAVID GRANT, MERCHANT IN EDR, 1716." It is a large plate, $19\frac{1}{4}$ inches across, the rim being $3\frac{1}{4}$ inches wide. The metal is richly engraved with floral and other devices, is yellow in colour, and has the following composition :—

Copper	78.62
Tin	0.94
Zinc	20.42
	99.98

The second of the old plates is inscribed, "GIFTED BY JOHN BROUN MERCHANT IN EDR. TO THE COLLEDGE KIRK SESSION 1741," but from its appearance must be of much older date than that stated. It is $19\frac{3}{4}$ inches across, with a rim 3 inches broad. The metal is dull red in colour. The centre is occupied by a coat of arms, having a shield, on which all markings are effaced, supported by rampant leopards, who uphold what appears to be a bishop's mitre surmounted by a cross. The supporters appear to be those of Mary of Guelders who founded the church, but the mitre does not appear on her arms. A twined vine and grapes form a border, and in which four vignettes are introduced. These consist of a male head in the upper one, with female heads to the left and right. That on the right is double faced—one laughing and the other frowning. The rim bears devices partly engraved and partly beaten.

The composition of the alloy is as follows :—

Copper	82.05
Tin	1.81
Zinc	16.11
	99.97

IV. *The Bell of the Hospital of the Trinity College Kirk*.—This bell, which for a long time after the demolition of the old church found an asylum alongside the gallows under the the North Bridge has been recently

returned to the kirk-session, and is now fixed in the belfry of the rebuilt church. It bears the following inscription :—

RO * HOG * FECIT FOR * THE * HOSPITAL *
 * 1639 *
 OF * THE * COLLEDG * KIRK * OF * EDINBRUGH *

The date given is that on which the bell was re-cast at Stirling by Robert Hog. The bell is of bronze, and has the follow composition :—

Copper	.	.	.	.	.	.	.	73	61
Tin	.	.	.	.	.	.	.	26	38
									99

MONDAY, 8th March 1880.

THE MOST NOBLE THE MARQUIS OF LOTHIAN, President,
 in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

JOHN L. HENDERSON, Esq., 3 Minard Terrace, Glasgow.
 A. WILSON FAULDS, Esq., Knockbuckle House, Beith.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By the Trustees of the late DAVID LAING, LL.D., F.S.A. Scot.

Portrait in water-colour on ivory of the Earl of Moira, Commander-in-Chief of the Forces in Scotland.

Miniature Portraits of William Low, Portrait Painter, by John Kay ; of Lady Leslie, and of Nisbet of Dirleton, also on ivory.

The Minute Book of the Abbotsford Club.

(2.) By ARTHUR ANDERSON, M.D., C.B., F.S.A. Scot.

Socket-stone for the Spindle of an Upper Millstone, being a water-worn boulder of quartz $7\frac{1}{2}$ inches diameter, with three holes worn by the spindle in its upper surface, found at Tomchalan, Moulin, Perthshire.

(3.) By FRANCIS LIGHTBODY, Esq., C.E.

Celt of greenstone, polished, $10\frac{1}{2}$ inches in length, $3\frac{1}{2}$ inches in width and 2 inches in thickness at the widest and thickest part, tapering to a width of $1\frac{1}{2}$ inches at the butt, which is brought to a flattened form similar to the cutting end, but slightly expanded at the sides. The edges are ground flat. In shape it closely resembles the celts found at Drumour in Glenshee, Forfarshire, figured in the "Proceedings," vol. ix. p. 174. This fine specimen was found on the farm of Lagg, Dunure, Ayrshire.

(4.) By JAMES DALGARNO, Esq., Slains.

Polished Celt of felspathic stone, greatly weather-worn and decomposed on the surface, $6\frac{7}{8}$ inches in length, 3 inches in width at the widest part, oval in the cross section, and tapering to a point at the butt. It was found on the farm of Upper Brownhill, Slains.

Leaf-shaped Arrow-head of Reddish Flint, $1\frac{1}{2}$ inches in length, found on the same farm.

With reference to these implements, Mr Dalgarno says :—"The stone axe and flint arrow-head now presented to the Society were found by Mr William Sim, farmer, Upper Brownhill, Slains. These are only a sample of many that have been found from time to time in this locality. Several years ago a stone cist, containing burnt ashes, was laid open by quarry-workers on the farm adjoining Mr Sim's. A little to the west of the quarry there had been a camp of flint-workers, the site of which might measure in circumference about fifty yards. Many flakes and partially-formed arrows are still to be found after the plough. The farm of Upper Brownhill stands high, and is contiguous to the Moss of Lochlundie. In reclaiming part of the moss, layers of trees, which had evidently floated from the west, were cut through at a depth of 6 feet

in black moss. **Horns of the stag** and wild cattle have been found from time to time by parties cutting peat. A good specimen of the latter was found in July this season, and sent to Dr John Alexander Smith, for the Society."

(5.) By Rev. JAMES O. HALDANE, M.A., Minister of Kingoldrum.

Cylindrical Hammer of grey granite, $2\frac{1}{2}$ inches diameter and $2\frac{3}{4}$ inches in length, slightly constricted in the middle, and the rounded ends slightly convex. A hole $\frac{3}{4}$ inch in diameter has been begun to be bored through it from both sides. It was found in the parish of Glammis, Forfarshire.

Irregularly circular Disc of Sandstone, 3 inches diameter, $\frac{1}{2}$ inch in thickness, having a hole $\frac{1}{4}$ inch wide pierced through the middle of the disc. It was found in the parish of Kingoldrum, Forfarshire.

Celt of felspathic stone, polished, 4 inches long, $2\frac{1}{4}$ inches wide and $\frac{3}{4}$ inch thick at the widest and thickest part, tapering to the butt, which is broken. The edges are only slightly flattened, so that the section is almost oval. It was found near the Loch of Kinnordy, Forfarshire.

Celt of black basaltic stone, polished, 5 inches in length, 3 inches wide and 1 inch thick at the widest and thickest part, tapering and thinning slightly to the butt, which is rounded and flattened. The edges are not flattened, so that the cross section is a long oval. Both the flat faces are polished by use as a rubbing-stone. It was found in the parish of Airlie, Forfarshire.

Celt of greenstone, polished, 5 inches long, 3 inches in width and $1\frac{1}{4}$ inch in thickness at its widest and thickest part, tapering and thinning slightly towards the butt, which is rounded and damaged. It was found in the parish of Airlie, Forfarshire.

Celt of bronze, socketed, $4\frac{7}{8}$ inches in length, $1\frac{1}{4}$ inch wide across the cutting face, and with a loop on one side $\frac{1}{2}$ inch long and $\frac{3}{4}$ inch below the rim of the socket. The socket, which is oval, has no bevel moulding



Socketed Celt
($4\frac{1}{4}$ inches long).

or ornament. It is oval in the opening, $1\frac{1}{2}$ inches long and $\frac{3}{4}$ inch wide. This long narrow form of socketed celt is uncommon in Scotland. The present specimen was found in the parish of Kingoldrum.

- (6.) By Rev. JOHN FERGUSSON, M.A., Minister of Fearn, through
Rev. J. O. HALDANE, M.A.

Whetstone of micaceous sandstone, $3\frac{1}{4}$ inches in length and about $\frac{3}{4}$ inch of a side, having a hole for suspension through one end, and very much worn by use. It was found in a cist in Glenshee, Perthshire.

- (7.) By JOHN SIBBALD, M.D., F.S.A. Scot.

Tyrolese Cattle Bell, purchased at Meran, in the Tyrol. The bell is of iron, brazed, $3\frac{1}{2}$ inches wide and $3\frac{1}{2}$ inches high, exclusive of the handle, which is $2\frac{1}{2}$ inches wide and 1 inch in height. The mouth of the bell is nearly rectangular, with rounded corners and slightly bulging sides. It measures $3\frac{1}{4}$ inches in length and 2 inches in width. The bell is formed by doubling an oblong piece of sheet iron in the middle, and overlapping and rivetting the two sides. The handle passes through the top of the bell, and forms the loop on which the iron clapper hangs. The size is that of a sheep or goat bell. A similar sheep bell, but larger, from Wiltshire, is in the Museum. All the domestic animals wear bells in the East, and camels, horses, donkeys, cows, sheep, and goats have each a different variety of bell, some of which are much larger and others much smaller than the present specimen.

Stone article, being a rough piece of slate, 6 inches by 4, and $\frac{1}{2}$ inch thick, one end rounded and slightly narrower than the other, the edges of the stone all round being smoothed and slightly rounded. The stone is constricted in the centre of its length and width, with marks as if for cords, having also a hole about 1 inch in length and $\frac{1}{2}$ inch in width cut through the narrower part by a sharp tool. On one side there are incised the letters I x G, below them a heart and a species of *fleur-de-lis* between the figures 17, below them 1683, and in the corner a square about $\frac{3}{4}$ inch of a side, diagonally divided into four triangles. On the other side a similar square similarly divided by a saltire, a laureated head,

below it a thistle crowned, but reversed, between the letters C R, and below them on the right side the figures 83, the space on the left side blank. Below all are the words "John Gibsone" in the ordinary script of the period, and underneath them some other writing now illegible. This curious object was found in Arran.

(8.) By JAMES S. ANDERSON, Esq., Warminster.

Digging Stone from Chili, being a flattened ovoid boulder of greenstone, $5\frac{1}{2}$ inches diameter, and about 3 inches thick, having a hole $2\frac{1}{2}$ inches wide at the surface, but narrowing to $1\frac{1}{4}$ inch in width at the centre, pierced through its thickness in the middle of its flat sides.

(9.) By JOHN SHAND, M.D., F.S.A. Scot.

Tinder-box, being a can-shaped box of sheet iron, 3 inches diameter, and $3\frac{1}{2}$ inches deep, riveted up the side, and bound round the bottom with a wooden hoop. The lid and the bottom are made out of cork-floats for nets. It was obtained as in use by a fisherman in Kirkcudbrightshire.

Steel, $4\frac{1}{2}$ inches in length, and flint used with the same, also from Kirkcudbrightshire.

Pocket Tinder-box, being a hinged box of sheet iron tiuned, as commonly used for a tobacco box by the fishermen of the same locality.

(10.) By J. J. MILLIDGE, Esq., F.S.A. Scot.

Penny of Edward III., struck at Durham.

Penny of David II., reverse REX SCOTORVM.

(11.) By D. J. MACFIE, Esq. of Borthwick Hall.

Plan of Entrenchments at Borthwick Hall, by Mr W. Galloway, Architect. [See the subsequent communication by Mr Galloway.]

(12.) By the COUNCIL of the ROYAL IRISH ACADEMY.

Transactions of the Royal Irish Academy. Vol. xxvi., Parts 18-21, and Vol. xxvii., Parts 2 and 3.

Proceedings of the Royal Irish Academy. Vol. i., Series ii., Part 13.

(13.) By the ROYAL UNIVERSITY OF COPENHAGEN.

Kjöbenhavn's Universitets Retshistorie, 1479-1879.

J. C. Jacobsen's Description des Serres des Jardin Botanique de l'Université.

Medal in bronze, Fourth Centenary of the University.

There were also exhibited :—

1. By His Grace the DUKE OF BUCCLEUCH and QUEENSBERRY, K.G., &c., F.S.A. Scot.

Gold Lunette, found at Auchentagart, and massive Silver Chain found at Whitecleuch. [See the subsequent communication by J. Gilchrist Clark, Esq.]

2. By A. G. REID, Esq., Auchterarder.

Coffer of Black Oak, rectangular in the lower part, the lid with sloping sides and flat top, like a pavilion roof. The coffer measures 16 inches long, $7\frac{1}{2}$ inches wide, and 10 inches high, is ornamented with strips of brass fastened by copper nails, and is said to have been obtained from Cambuskenneth Abbey.

3. By STAIR AGNEW, Esq., Queen's and Lord Treasurer's Remembrancer.

Four Gold Rings, found at Stenness, Orkney. Two of the rings are formed of strands of gold wire, twisted together. The smallest is



Gold Rings found at Stenness (actual size).

similar to one found in Bute, with coins of David I. (Proceedings, vol. v., plate vi. fig. 2, and p. 373). It is 1 inch in diameter, and is

composed of three strands twisted together, thickest in the middle, and tapering to the extremities, which are welded together. The other more resembles a ring of plaited wires found in the island of Fladda Chuin, and now in the Museum. It measures 1 inch in diameter, and is composed of seven wires, four plated in double strands, and the three outermost making a triple plait, which is also interplaited with the two double strands. As in the former case, the wires decrease in thickness towards the ends, which are welded together to form a lozenge-shaped bezel. The other two rings are plain hoops, formed of a flat band of gold, about $\frac{3}{8}$ of an inch wide in the widest part, and tapering to the ends, which are unjoined. One of them is broken. The following account of the discovery of these objects was communicated by James M. Macbeath, Esq., F.S.A. Scot., in a letter to Mr Anderson :—

“ KIRKWALL, 2nd Sep. 1879.

“ I have much pleasure in acquainting you of a most interesting ‘ find ’ which was made last Friday, in a field near the shore of the loch of Stenness. The finder is a small farmer in the parish in which the find was made. I only heard of it to-day, and lost no time in calling on the person in whose hands the interesting relics have been placed for sale. They consist of four separate pieces of gold, which weigh about twenty-eight pennyweights of what the watchmaker here says is fine gold.

“ There are first two rings, each about $1\frac{1}{8}$ inch diameter outside measurement. Both are curiously wrought, and are of different designs or patterns. Then there are two flat strips or bands of gold, by which the two rings were attached to each other when found. The bands are about No. 28 wire gauge in thickness. I have just learned that No. 2 was the same length as the other, but the farmer had a piece cut off, and took it to Stromness to have it tested.

“ No. 1 ring consists of two gold wires about the size of No. 13 wire gauge, twisted together like a rope, and gradually getting smaller where the ends are neatly hammered into the coil. At the thickest part the ring is fully $\frac{3}{8}$ of an inch in diameter, at the smaller part is barely $\frac{1}{8}$ of an inch.

“ No. 2 ring is much more elaborately wrought. It consists of a series of small wires, about No. 19 wire gauge, twisted together in the form of three

curb chains—one at each side of the ring, and the third in the centre, rising like a ridge above the two curbs on either side—and having a flat part, diamond-shape, at the small part, where the wires all terminate.

“For the style of both (but more so of No. 2), and general appearance, I refer you to Wilson's ‘Pre-Historic Annals of Scotland,’ edition 1851, p. 677.”

Hoard of Groats of Robert III., found at Fortrose. [See the subsequent papers by Mr Geddie and Mr Burns.]

Mass of Bronze, like a thick cake, irregularly circular, 9 inches diameter, and 3 inches thick, weighing about 36 lbs., ploughed up at Carleton, Glasserton, Wigtownshire.

The following Communications were read :—

I.

ON STONE IMPLEMENTS FROM NOVA SCOTIA AND CANADA, AND ON THE USE OF COPPER IMPLEMENTS BY THE ABORIGINES OF NOVA SCOTIA. BY PROFESSOR DUNS, D.D., VICE-PRESIDENT.

In the introductory chapter of “Acadian Geology,” Principal Dawson says—“Nothing can be more striking to anyone acquainted with the American Indian than the entire similarity of the traces of pre-historic man in Europe to those which remain of the primitive condition of the American Aborigines . . . ; and it seems evident that if these pre-historic remains are ever to be correctly interpreted by European antiquaries, they must avail themselves of American light for their guidance. . . . One can scarcely open any European book on this subject, or glance at any of the numerous articles and papers on this fertile theme in scientific journals, without wishing that those who discuss pre-historic man in Europe knew a little more of his analogue in America.” While I would not put the matter in this somewhat exaggerated form, the value of a comparative survey of the implements used by pre-historic tribes, located in widely separated geographical areas, will be acknowledged by all. It

was mainly this consideration which induced me to procure specimens of the remains of the extinct Indian tribes of Santa Barbara, California, described by me at a meeting of the Society in February 1878. By the kindness of an accomplished friend, the Rev. Dr Paterson, New Glasgow, Nova Scotia, I am able to exhibit some implements obtained in other districts of America. He says—"I send you by the Rev G. W. Spratt, of North Berwick, a few stone implements. I am sorry I could not send you any better. But it is scarcely possible now to get in this province any finely polished or worked implements. They have been so much sent abroad, or taken by visitors, or put into private collections in this country, that they are now rarely to be found. I send you specimens of such as are still picked up, though now comparatively rarely. In some parts of the United States they are found in great abundance. I send one from Lake Superior, known as a scraper, intended to be held in the hand and not to be hafted." I shall have to refer to this specimen shortly. Meanwhile, may I remind the Society that, in April 1879, in a short paper on "Smoothing Stones," I quoted the description given by an agent of the United States Indian Bureau, of the method by which the North American Aborigines prepare the skins of large mammals for use, and of the rubbing-stones for rendering them soft and pliable. It seems to me that all the larger implements now exhibited had been used for the same and analogous purposes. The term stone axes may or may not be misleading, according as we view them. They may have been originally employed even as weapons, and then come into use as tools, or they may have first answered as tools for one kind of work, and have then been pressed into work of another kind altogether. That some to which the name axe has been given could never have been equal to the work of an axe seems past doubt. Of this kind is the largest specimen, now exhibited; it is from the entrance to Pictou Harbour, Nova Scotia. It is of compact heavy greenstone, pitted all over with small holes, resembling those of vesicular trap, but in this instance due apparently to the influence of weathering on lime granules in the substance. A transverse section would, near the centre, give nearly a semicircle. The polishing is mostly

limited to one side. It is $8\frac{2}{3}$ inches in length, $2\frac{2}{3}$ inches in breadth at the broadest part where the bevel begins, and $1\frac{1}{2}$ inch at the narrow end. When the narrow end was grasped by the right hand, the tool could be worked with much force by the left hand taking hold of it crosswise. On the side next the worker the surface is flattened, as if to give a place to the ball of the palm.

The so-called scraper, referred to above, seemed to Mr Anderson, when shown to him recently, to be very unlike an American form. I cannot, however, have the least doubt on this point. Dr Paterson is an able and trustworthy observer, and that he would only have been too glad to find it foreign will appear from the following sentence from one of his letters to me:—"I should like much to get a specimen or two of European stone axes, for the purpose of illustrating and comparing with American, I will cheerfully give two or three American for one European, and do not mind whether it is British or Danish." So far as I have been able to see, there is no specimen very like this one in the Society's Museum. But I have one from Shetland, which bears considerable resemblance to it. In both cases it is clear that the rubbing has been most on one side. In the Lake Superior specimen a slight depression occurs on the least used side, in which the forefinger lies when the tool is grasped for work. This, like the flattened side of the tool just referred to, may be merely accidental. The Shetland specimen is of porphyry, that from Lake Superior is a porphyrite. One of the specimens is marked "Micmac Axe from Middle River Point, Pictou, Nova Scotia." Like the others, it seems to have been chiefly used on one side. "The Micmac," says Dawson, "still pitches his rude wigwam of birchwood within sight of the largest cities of Acadia, but he has entered into the Iron Age, and the stone weapons of his ancestors are as much objects of curiosity to him as to his neighbours of European origin." The other so-called stone axe is a granitoid form from Merigomish, Nova Scotia. I have been much interested in noticing that this limitation of the rubbing surface mainly to one side is not only characteristic of these American specimens, but of European ones also. It is so

with that from Shetland just mentioned, and also with one from Derbyshire, and another from Ireland, now exhibited. Among the specimens is one $2\frac{5}{8}$ inches in length, and $1\frac{6}{8}$ inch in breadth at the cutting edge, which the American archaeologists call a "skinning knife," a much better designation, I am inclined to think, for an implement of this sort than the term "celt." This specimen is from Lake Superior, and is of coarse serpentine. A specimen is figured in Dr Abbot's "Stone Age in New Jersey,"* exactly resembling this one in shape and material.

The Arrow-heads now exhibited are from Nova Scotia, Lake Superior, and Canada West. The Lunenburg, Nova Scotia, specimens are three in number, one finished and two unfinished. The former is of a distinctly European type; one of the latter seems to have been intended to be similar in shape, the other is of the obovate form so common in America. A like difference is apparent between the two Lake Superior specimens. There are five unfinished forms from Merigomish, Nova Scotia. There is also one from Prince Edward's Island unlike the others, and differing, I think, in shape from any of the American forms in the Museum. The Canada West specimens are well made, and have quite a handy look about them.

When a year ago I had the pleasure of meeting Dr Paterson, it occurred to me to make inquiry, both as to the form and the materials of the prehistoric implements of the Canadas, and he informed me that he had himself found implements not of stone only, but of bone, and of copper also. The reference to copper was full of interest. "The bronze age," says Dawson, "never existed in North America; but in Nova Scotia, as in Canada, native copper was used for trinkets, though, from its scarcity, only to a very small extent." But the interest here is quite as much for the geologist as the antiquary. The Nova Scotia copper occurs "in masses varying from several pounds in weight down to the most minute grains, in the veins and fissures which traverse the trap." Dawson thinks it "probable that the metal has been deposited from an

* Smithsonian Reports, 1875.

aqueous solution of some salt of copper, in a manner similar to that of the electrotpe process. Why this should have occurred, in trap rocks more especially, does not appear very obvious." But whatever may have been the natural chemistry of the deposit, it is clear that these masses supplied the copper from which the pre-historic copper implements were fashioned. I am able to show photographs of some of these, and of bone implements collected by Dr Paterson, and hope, in the long run, to get some specimens for the Museum. Most of the Nova Scotia specimens have been found by Dr Paterson himself. They are interesting as proving that the aborigines had the knowledge of this metal, and were able to fabricate it into various articles.

II.

NOTE ON "TROTTER ROOFING." BY PROFESSOR DUNS, D.D., VICE-PRESIDENT.

Before slates came into common use for roofing, thin flags were much employed as a substitute for thatch in districts where fissile rocks of any sort were easily obtained. The readiness with which they could be split into convenient pieces, and their tidy appearance on the roof, led to their frequent use for the better class of houses. The rafters were in many cases made of oak, and the flags were hung on them by means either of wooden pegs or of "trotter-bones"—sheep-shanks, as they were called—the metacarpal bones of the sheep. The bones were driven into the flag till flush with the upper surface, and suspended on the rafter by the part projecting below. Some of these bones, together with a fragment of a roofing flag, pierced by a circular hole large enough to receive the pin of bone, are now presented to the Museum. They were obtained by me in 1861, in the course of a visit to the late James Cunningham, Esq., then residing at Gretna Hall, Dumfriesshire. In the autumn of that year, a house in the High Street, Annan, had the flagstones removed from its roof, and replaced by common slates. The

flags were, for the most part, larger than the slates now in use, the hole for the pin being in a position answering to that for the nail in slates. Some of the largest flags had two holes. The number of bones in a comparatively fresh condition was far greater than could have been expected, considering the age of the building.

A notice of the unroofing of Mrs Williamson's house appeared at the time in *The Annan Observer*, from which the following extract is taken. It is worth preserving, because of its reference to the history of this old house:—

"Naworth Castle, before the great fire a few years ago, was roofed with the grey flags so common in Northumberland, and they were fastened down with sheep-shanks in the same way as in the roof of the old house in the High Street to which we have alluded. This house was built in 1666, and it is supposed that the flags now removed have never before been disturbed since the house was erected. The house is built of bricks, burned so hard as to be almost vitrified; and it is supposed that they were made at the brickworks that are understood to have been in operation long ago, at the Pricked Acre. As was the case with many of the old houses in Annan that have now disappeared, the house we refer to stands with its gable to the street. At one time it was a house of great importance, and was occupied as the head inn in the town; and it was the host of this inn who is supposed to have been the hero of the anecdote narrated in the lecture on 'Annan,' delivered by the late Mr James Little to the members of our Mechanics' Institute, according to which anecdote the landlord of the principal inn in the town was found by a traveller from England to be both ostler and waiter at the inn, and at the same time was Provost of the burgh, and its representative in the Scottish Parliament. In this old house—no doubt an inn at the time—Burns lodged, when on duty as an excise-man in Annan; and in it he is said to have composed the song of "The de'il cam' fiddlin' through the town." The bed in which the poet sought repose when on duty here still retains the same position in a snug little closet which it occupied when he used it."

III.

NOTICE OF THE DISCOVERY OF A HOARD OF GROATS OF ROBERT III., ENCLOSED IN A EWER OF BRASS, AND BURIED IN THE CATHEDRAL GREEN, FORTROSE. By Mr W. S. GEDDIE, FORTROSE. COMMUNICATED BY J. R. FINDLAY, Esq., VICE-PRESIDENT.

On 22d January 1880, the clay floor in the kitchen of the cottage of Mr Donald Junor on the margin of the Cathedral Green, Fortrose, was being lifted, with the object of having a flooring of cement laid down in its place, when, at a depth of a few inches below the clay, the tip of the spout of what appeared to be a kettle was struck. On examination



Ewer of Brass found at Fortrose
(9 inches high).

it was found that a square cavity had been formed by four rough pieces of whinstone, and within this stood an antique vessel of brass, much tarnished on the surface, and of the form and dimensions shown in the accompanying woodcut. The top of the vessel was closed by a circular piece of lead, $\frac{3}{4}$ ths of an inch thick, carefully fitted to the neck of the flagon. On removing this lid, it was found that the vessel was filled with silver coins of the reign of Robert III., King of Scots, and numbering, as was ascertained, 1100 in all. There was a quantity of black-looking liquid in the vessel,

but unfortunately it was poured off before there was an opportunity of finding out whether it was some preservative, or merely water that had got entrance by the spout. It was at first reported that there were some fragments of manuscript along with the coins, but this appears to be without foundation. The silver pieces were, with comparatively

few exceptions, in wonderfully good preservation. The majority were similar in size to the specimens sent herewith, others were smaller—evidently representing about half the value. The places of coinage are Edinburgh and Perth; but at least one was marked “Villa + de + Aberd.” The diverse spellings of the inscriptions and other details show that they have been stamped with a variety of dies; and among the different readings of “Scotorum” in the legend round the head of the King were “Scottorum,” “Scotorn,” “Seturm,” and “Setrum;” also “Gratia” instead of “Gra,” &c.

The houses forming the square around the present Cathedral Green, including that covering the site of the “find,” are all of comparatively recent date; and they occupy part of the space forming the old “Yard” or “Green” of the Cathedral of Chanonrie—the name of Fortrose previous to its incorporation along with Rosemarkie by a charter of James II. In the centre of the space was the church, described by Neale as “of the purest and most elaborate middle pointed.” Around the Green were grouped the “manes” of the canons and presbyters of the Diocese of Ross, and the residence of the Bishop, surrounded by their spacious gardens. The accompanying rough plan will give an idea of the pettiness of the present surroundings (drawn in black ink) compared with the stately and handsome proportions of the ancient “Precincts” (marked in red); and it also indicates the spot where the flagon and coins have been unearthed.

About the period when the treasure must have been concealed, Chanonrie is believed to have been in the heyday of its prosperity. Its sunny southern exposure and attractive surroundings made it a favourite place of resort; and it became, under its band of leisured clergy, a kind of “Lamp of learning” in these northern parts. With the graceful Cathedral Church in its midst, the spacious Green, bounded by lines of fine old trees, and enclosed by the residences of the Chancellor, Treasurer, and Precentor, of the Arch-Dean and Dean, and of the Archdeacon of Kirk-michael, with the Manes of the parochial charges of Cullieindden, Lem-lair, Rosskeen, Ainess, Kiltearn, Contin, Kilmuir, West Kilmuir, and

Kincardine, each opening on the Yard by pointed Gothic archways; behind these the Bishop's Palace, the Castle, the houses of the Sub-Dean and Chanters, the Rectory of Kirkmichael, and the Manse of Logie, Obstill, and St Katherine's, with their orchards and courtyards, the old burgh must have had an air of ecclesiastical culture and retirement and even of dignity not common in its day or even in ours. The avenue of trees running near the present line of houses was cut down by Cromwell, who transported the stones of the Cathedral by sea to Inverness to build his fort there, and the only remains of the edifice are the south aisle of the nave and chancel, and the Chapter House, now used as the Town House.

It will be observed that the manse nearest the site of the "find" is that of Kiltearn—a parish near Dingwall. It is a curious fact—and probably is not a mere coincidence, but indicates the manner in which the concealer of the treasure expected to be guided in searching for it again—that a line drawn down the centre of the nave of the old Cathedral (which lay, as usual, east and west; or from corner to corner of the Green) would, as near as can be judged, pass through the site of the "find." Further, in the same line, but nearer to the Cathedral, there was at one time a mound or tumulus surmounted by a stone, and known as the "Holeridge." The discovery was made half-way—40 feet from each—between the "Holeridge" and the boundary of the ancient Green with Kiltearn Manse. The local tradition—which, however, assigns no date to the event—runs that some of the ecclesiastics of the place while strolling out near the outskirts of Chanonrie, perceived coming through the air towards the town in the likeness of a misty ball, one of the deadly pestilences which were frequent visitors to mediæval communities. The priests were equal to the occasion, and cleverly capturing the plague in a white sheet, they buried it, sheet and all, with "bell, book, and candle" in this corner of the sacred enclosure, in a line with the high altar. It appears from the annals of the burgh that when repairs were being made on the present boundaries of the Green, orders were given by the Council to excavate the mound, in order to see what might be beneath. The

records do not show any results of this search ; but the popular account is that the burgh functionary charged with the task, fearing some irruption of evil spirits, or the setting free of the "plague," "scamped" or altogether neglected the work ; and the matter fell into oblivion. When the present wall was built the stone was removed, and no trace of the place is now left.

Some clue to the motive that prompted the hiding of the treasure may possibly be found in the existence of the site of the old Castle behind the line of Manses, and the struggles that have taken place for its possession. It is said that the Mackenzies, starting originally from the west coast, pushed eastward as the clan grew in strength, and coming into this part of the country, captured the castle from its then custodiers, the ancestors of the Munros of Fowlis. The former owners repossessed themselves of it, but the Mackenzies mustering their forces again seized it, and getting into favour with the Crown shortly after, obtained a grant in their own name, and held it till it became uninhabitable. They are generally credited with possessing as little scruple in appropriating church property as in seizing on secular gear. The "Seaforths" were not the only marauders who were attracted to this pretty and fertile part of the Black Isle. At a much earlier date, the Norse rovers are said to have visited it, and the well-known monument of Celtic style in Rosemarkie churchyard, a quarter of a mile to the eastward, is said to have been brought from Denmark, to mark the spot where a sea-king had fallen. Not long ago, a stone coffin with bits of old pottery was found near Allangrange, in this neighbourhood. Old coins have not unfrequently been picked up about the Cathedral ; and a tracing is forwarded of one (date 1602) found in what was formerly the garden of the palace. The late Captain Mackenzie, Fortrose, who took much interest in such matters, collected a number of these coins—both silver and copper—but none that I have seen are earlier than the Reformation, or, indeed, than 1681, unless several of Edward III. of England's reign are to be classed among those found in the Cathedral.

I am sorry I am unable to furnish the Society with more definite

information, but would be pleased if I thought that these particulars would help to show that the history and antiquarian lore of Fortrose (the original charter of which, as a royal burgh, dates from Alexander II.) are worth the attention of skilled archaeologists.

IV.

DESCRIPTIVE NOTICE OF THE COINS IN THE FORTROSE HOARD, WITH
NOTES ON THE CORRESPONDING GOLD COINAGE OF SCOTLAND.
BY EDWARD BURNS, Esq., F.S.A. SCOT.

There are two principal series of the Robert III. groat coinages, both very well represented in this hoard. These are respectively distinguished: the one by having the points of tressure ornamented with three pellets, disposed in loose pyramid form, the other by having the points of tressure ornamented with neatly-formed trefoils. They differ also in their style of bust and lettering, and in their general execution. The first series, so far as relates to the present hoard, consists entirely of Edinburgh groats. I am not aware of any Perth or Aberdeen groats which have the points of tressure ornamented with three pellets, but there are a few Dumbarton groats of this variety, evidently imitated from those of Edinburgh. The Dumbarton groat coinages of Robert III. must have been of very late issue, for their average weights do not exceed those of the James I. groats. As there are no Dumbarton groats in this hoard, nor any specimens of the light groat coinages of Edinburgh or of Aberdeen,—there seems to have been none struck for Perth,—it may be inferred that the Fortrose hoard was deposited some time before the light groat coinages of Robert III. made their appearance.

The second series, as here represented, consists of groats of Perth, Edinburgh, and Aberdeen. The Perth coins are placed by me first in order, for the earlier issues of the trefoil-pointed tressure groats appear to have been limited to the Perth mint. To a certain extent the two series were probably of concurrent issue. But judging from the remarkable

correspondence in respect of lettering and fabric of the groats of the three-pellet-pointed tressure series with the groats of Robert II., we may reasonably assume that these were the first in the field. Bonagius of Florence, who was master moneyer during the reign of Robert II., is expressly referred to as Bonagius, "our Moneyer," in the Act 24 Oct. 1393, of Robert III.; and, in all likelihood, the three-pellet-pointed tressure coins of Edinburgh under Robert III. were executed from dies chiefly furnished by Bonagius himself. The crown, it may further be remarked, on what appear to have been the earlier varieties of the three-pellet-pointed tressure groats of Robert III., is identical with that on the groats of Robert II.

Until the reign of Robert III. the points of tressure were always quite plain. Such ornamentation as was introduced on the tressure during the two previous reigns was confined to the external angles. The number of arcs on the groats of David II. and Robert II. was usually six—in some rare instances seven—these in no case extending below the bust. The lowest number of arcs on the three-pellet-pointed tressure series of Robert III. is seven arcs, and these invariably extend all round the bust. There are, however, in this hoard, certain Edinburgh groats with tressure of six arcs, which do not extend below the bust, and which have the points plain, agreeing in these respects with the groats of Robert II. Save in these particulars, and that the words on obverse are not divided, these coins correspond closely with certain seven-arc groats of the three-pellet-pointed tressure series. Both have the same broad face, with limp curls—the same plump formation of the lower part of bust—the same long, flat Robert II. style of crown—the same peculiarity of lettering, remarkable for this, that the *R*, which is more free and flowing than the usual *R*, always takes the place of the *B*, so that we have ROBERTVS for ROBERTVS, LIRATOR for LIBATOR, EDINVRGH for EDINBURGH,—as on some Robert II. coins with this identical *R*. It is extremely probable that the six arc Edinburgh groats, as above, with the points plain—and with the tressure not extending below the bust—were the very earliest issues of Robert III.; and that their counterparts of the three-pellet-pointed series, with the

seven arcs all round, were the earliest of that series. Commencing the three-pellet-pointed series in this way, we have next groats with head similar to the preceding but not so broad, and with the curls branching out in more graceful curves. The lower part of the bust on some pieces is plump and full, as on the above, but more frequently it has an attenuated appearance, with long sloping shoulders. The letter *n* is the straight up and down *n* of the usual Robert II. character, and is never substituted for the *n*. The words on reverse in this group, as also on both the preceding, are divided by two saltires (crosses of the St Andrew form); on obverse the words are divided by three pellets—so also are the words on the obverse legends of the ROBERTVS groats with the seven arc three-pellet-pointed tressure. Some coins with this tressure, both with the ROBERTVS and the ROBERTVS inscriptions, besides the three pellets after each of the words on obverse, have two saltires after SCOTORVM. One variety has two saltires after each of the three first words on obverse, and three pellets between REX and SCOTORVM.

With the more attenuated bust we have also, of the three-pellet-pointed tressure series, groats with the words on obverse divided partly by three pellets and partly by small fleurs-de-lis and crescents in combination—; and on reverse, by fleurs-de-lis and crescents only—combined in the same manner as on obverse—. It is remarkable that, where the pellets prevail in the inscriptions on obverse, the crown is large, with the spaces between the lis low and flat, as on the coins previously described; and that, where the fleurs-de-lis and crescents are the more numerous, the crown is usually smaller, and with the spaces between the lis taller and sharper. On the coins, in the group next in order of sequence, with same style of head as before, but with still more attenuated bust, and with the words on both sides divided wholly by fleurs-de-lis and crescents in combination, the crown is almost invariably of the smaller character with the tall sharp intermediate spaces.

There is a peculiarity in the form of the letter *a* on some of these fleurs-de-lis and crescents groats, of which it is very important to take note. On the coins, with the words otherwise divided than by fleurs-de-lis and crescents,

in the three-pellet-pointed tressure groups previously described, this letter was of the compact form of the *A* on the Robert II. coinages. But now we meet with a smaller *A*, somewhat top-heavy, and frequently in two halves. This *A* does not occur on the obverses of the coins with the words divided partly by three pellets and partly by fleurs-de-lis and crescents in combination, but we find it on their reverses, where the words are divided wholly by fleurs-de-lis and crescents in combination. Out of 32 groats of this variety in the present hoard, it occurs on the reverses of 16—exactly one-half. I ought to state that there are two varieties of tressure on the groats with the words on both sides wholly divided by fleurs-de-lis and crescents—the tressure of seven arcs, as on all the preceding coins of the three-pellet-pointed tressure series, and the tressure of nine arcs, now apparently for the first time introduced. One coin in this hoard seems to have the tressure consisting of eight arcs, but it is possibly only a mistruck nine arc tressure groat. For the rest, we find that out of 213 fleur-de-lis and crescent groats in this hoard, 176 specimens have the tressure of seven arcs, and 37 specimens the tressure of nine arcs. On the seven arcs tressure fleurs-de-lis and crescent groats, the small, heavy-topped *A* is by far the most commonly met with form of the *A*; on the nine arcs tressure fleurs-de-lis and crescent groats it is the only form of the *A* met with—so far, at least, as regards the coins in the Fortrose hoard.

Another variety of the three-pellet-pointed tressure groats has the words on both sides divided by fleurs-de-lis only, with a fleur-de-lis, instead of a cross, before the legend on obverse. The tressure on these coins consists of nine arcs, the crown is narrow, and the *A* is of the small heavy-topped character. There is a groat in this hoard with words on obverse divided by fleurs-de-lis, and on reverse by fleurs-de-lis and crescents. But this is simply a mule, the obverse being from the identical same die as the preceding coins with words on both sides divided by fleurs-de-lis.

The only other variety of the three-pellet-pointed tressure groats—so far as represented in the Fortrose hoard—while presenting us with a pleasing change of portrait from the somewhat coarse-featured face we have hitherto been familiar with, the nose being aquiline instead of a

broad snub, and the other features more carefully rendered—exhibits a very close connection with the coins last described, as shown by the nine arc tressure, by the small crown with high intermediate spaces, the slim bust, and the small heavy-topped *λ* in the inscriptions. The words on both sides are divided by two saltires. I have placed these coins last in the three-pellet-pointed tressure series, both because of their correspondence with the nine arc tressure groats in the preceding groups, and because the very same style of head, with slightly different adjuncts, is found on the very light groats of Edinburgh of late issue not represented in this hoard. These latter have single pellets only on the points of tressure, and the tressure is sometimes of eight, sometimes of twelve arcs, in both cases extending all round the bust, as on all the coins of the three-pellet-pointed tressure series. A Dumbarton groat with twelve arc single-pellet-pointed tressure, with aquiline portrait as above, is in the collection of this Society.

Not many interchanges of dies occur between the several groups of the three-pellet-pointed tressure series. As already mentioned, there is an instance in this hoard of a fleur-de-lis and crescent reverse united to a fleur-de-lis obverse. With the fleurs-de-lis and crescent reverse there are two coins with their obverses struck from dies of the previously described group—with words divided by three pellets. And of the groats with the full face and limp curls, and with ROBERTVS for ROBERTVS, there are two specimens with LIBATOR and EDINBURGH on reverse, instead of LIBATOR and EDINVRGH—the reverses being struck from dies of the following group, with the regular *h*, and its concomitant, the straight laced *h*.

The other great series of the Robert III. coinage—with the points of tressure ornamented with neatly-shaped trefoils, instead of the three pellets disposed in loose pyramid—is further distinguished from the three-pellet-pointed tressure series by the greater smoothness of the finish of the coins. The lettering is straighter and more sharply defined. The manner of ornamentation between the words is different. The crown, while large, has the spaces between the lis tall and acute. The curls swell out from immediately beneath the crown, instead of first descending some little distance as

on the former series. The lower part of bust, although not very full, is broad, with the shoulders well rendered. There are three styles of head on the trefoil-pointed tressure coinages, but all have the same crown, the same arrangement of the curls, with the same broad formation of the lower part of bust. One variety has an aquiline visage very similar to that on the last-described group in the three pellet-pointed series. A second, with longer and sharper face, has the nose very long. A third, and by far the best known, and the most numerously represented, has a round and rather chubby countenance. The second of these, in point of issue, is unquestionably the intermediate variety. It occurs only on some of those somewhat scarce pieces with annulets in the external angles of tressure, a peculiar mode of ornamentation, of which there are also examples with the two other styles of head. I have commenced my description of the trefoil-pointed tressure coins with this third-mentioned variety of head, my reasons for which will be apparent as we proceed.

Some coins with the round chubby head have the lettering larger than is found on others of the same variety, or on those with the two other styles of head. These relate entirely to the Perth mint. I have seen lettering similar in some respects on a few coins of Robert II. The *Λ* is not unlike that on the earlier groups of the three-pellet-pointed tressure coinage, the *c* and *e* are sharp and angular, the *τ* with plain top, but more frequently, on reverse, with long pendants at either end. The ends of the small crosses before legend on obverse, and in the legends on reverse, are usually so prolonged as to meet with each other, assuming the appearance of ornaments of four compartments. Some of these coins—with a tressure of seven arcs, not surrounding the bust—have no divisions between the words on obverse, but on reverse have the words divided by saltires and pellets, detached, or in combination. Others—with a tressure of eight arcs, the lower arc extending across the bust—have the words on reverse divided as on these last, and on obverse, by trefoils of the same form as the trefoils on the points of tressure. Others, with smaller lettering on reverse than on obverse—with a tressure of eight arcs as on these last, but with the lower arc across the breast very faintly expressed—have saltires and pellets

in combination ($\times$) between the words on both sides. On this smaller lettering the *l* and *r* are of a lankier character than on the larger lettering. The greater number of the groats in this hoard, on which the words are divided by saltires and pellets in combination, as above, have this smaller lettering on both sides. The tressure on these is respectively of eight, nine, and ten arcs. The lower arc of tressure, across the bust, on those with eight arcs, is very feebly rendered, and the breast is plain, as on all the coins with the trefoil-pointed tressure previously described. Some with the nine arcs, and all those with the ten arcs tressure, have a trefoil on the breast. With the exception of one groat of Edinburgh, all the coins in this hoard, which have the words on both sides divided by saltires and pellets, are of the Perth mint.

Next in order, perhaps, ought to be placed those Perth groats, with this chubby head, which have the words on obverse divided by mixed ornaments— $\times \times \times \times$; and on reverse by two plain crosses— $\times$. There are ten of these pieces in the Fortrose hoard, embracing several varieties of reverse, according to the different ways in which the crosses are disposed between the words. There is also an Edinburgh groat with the obverse from the same die as above, and with mixed ornaments on reverse, of the same character, but somewhat differently arranged from those on obverse. The lettering on these coins is the same as on those last described with saltires and pellets in combination between the words.

The remaining groats of Perth and Edinburgh, with the round chubby head, while agreeing with each other closely in lettering, and in the rendering of their obverse legends, now split partnership so far as the ornaments between the words are concerned. On those of Perth, the words, on obverse and reverse, are divided by two crosses— $\times$; while those of Edinburgh have the words on both sides divided by two pellets— $\bullet$; subsequently, by two annulets— $\circ$. The Perth groats with *GRACIA* correspond with the Edinburgh groats with *GRACIA*; and the Perth groats with *GRA* with the Edinburgh groats with *GRA*. Any one comparing these several varieties, in the respective coinages, can hardly doubt but that they have been of corresponding issue,

The lettering on the trefoil-pointed tressure coins, so far as described, has been homogeneous—of the same character all through. There appear to have been very few interchanges of dies on the Perth groats. One coin with large lettering on obverse, with the words divided by trefoils, has its reverse from a die of the smaller lettering coinage, with the words divided by saltires and pellets. Another coin, with the larger lettering on obverse and the smaller lettering on reverse, has its reverse from a die of the larger lettering coinage of the preceding group. And one coin, with the small lettering obverse—words divided by saltires and pellets—has its reverse from another die of the same larger lettering coinage. These three pieces excepted, there do not seem to have been any interchanges of dies on the Perth trefoil-pointed tressure coinages so far as represented in this hoard, and in so far as described. With the Edinburgh mintages of the trefoil pointed tressure series, as we shall have occasion to see presently, it was very different.

One variety, however, with round, chubby head as on the preceding groups, requires yet to be noticed—remarkable in more respects than one. The Perth groats of this class have the words on both sides divided by two crosses, as above, but with an annulet in each of the external angles of tressure,—which consists of seven arcs, not all round, with the breast plain. The Edinburgh groats corresponding to these have the words on both sides divided by two annulets, but are without annulets in the angles of tressure. On some, the tressure, like that on the Perth groats, is of seven arcs, not all round, and without trefoil on breast. On others, the tressure is of eight arcs—the lower arc, which stretches across the breast, being usually very faintly expressed. These last have a trefoil on the breast. The lettering on the obverses of all these coins, alike of the Perth and Edinburgh mints, is of the same description as on the immediately preceding groups. On reverse, also, the lettering on some pieces, although not on all, is homogeneous with that on obverse. These coins have the character, which stands for “&.” in the inscription on reverse before LIBATOR, expressed thus—+, which is simply an I with a stroke across the centre. This is the manner in which the & is represented on all the preceding coins with this head in the trefoil-pointed tressure series.

On all the three pellet-pointed tressure coins it is formed thus—, like a reversed **F**; and this is the style in which it is rendered on all the Robert II. coinages. Now, on the reverses of some of the Robert III. coins here referred to, on which the lettering on reverse is not homogeneous with that on obverse, we have this ; sometimes upsides down. On such of the reverses of the Edinburgh groats as the form  appears, the lettering is almost a literal transcript of that on the reverses of the groats last described in the three-pellet-pointed tressure series. So also on some of the Perth groats, while on others of the Perth mint the lettering, with which it is found in connection, is chiefly the same as that on the obverses. In stating these varieties, I refer, of course, to such examples as I have met with in this hoard.

Of the intermediate style of head, with the long face, we have groats of Perth and Edinburgh, both with annulets in the angles of tressure. The words on both are divided as before; on the Perth groats, by two crosses; on the Edinburgh groats, by two annulets. The lettering on the obverses of both mints is of the same character as the preceding. But while on the reverses of the Edinburgh groats the lettering is entirely homogeneous with that on obverse except in having  for +—the  sometimes taking the place of the r, and sometimes turned upsides down; the lettering on the reverses of the Perth groats—also with  for +—while for the greater part homogeneous with that on obverse, has some of the letters, notably the small, heavy-topped **A**, as on the last-described varieties of the three-pellet-pointed tressure coinage. These annulet groats seem to be the only coins with this head.

With the aquiline style of head, also, as previously remarked, there are groats with annulets in the angles of tressure. Those of Perth have the words, as before, divided by two crosses; those of Edinburgh, by two annulets; and those of Aberdeen—the first appearance, apparently, of this mint—by two crescents. On all of these we have  for +—this character also taking the place of the r—but in all other respects the lettering on reverse corresponds with that on obverse, which is the same as on the preceding varieties with annulets in the angles of tressure.

With the aquiline portrait, and with homogeneous lettering, as on these last, there are a number of groats in this hoard which have crosses instead of annulets in the angles of tressure, which is of seven arcs, with the breast plain. This is a hitherto unpublished variety of the Robert III. coinage, although known to some private collectors. All the specimens in the Fortrose hoard, and such few others as I have seen, belong to the Perth mint. There is, however, in the collection of Mr Coats, an extremely rare Robert II. Edinburgh groat, with the usual six arcs tressure, and with small crosses, as on these, in the external angles. This groat is further peculiar in having no star on the handle of sceptre; the lettering is of the ordinary Robert II. character; and the words on obverse, as on most groats of Robert II., are divided by two small crosses. It weighs 59 grains. Two of the Robert III. Perth groats in this hoard, with crosses in the angles of tressure, have + on reverse; all the others have ∇ , sometimes upsides down, and, in every instance, taking the place of the P in PECTOR.

Some remarkable interchanges with dies relating to other mintages, as above mentioned, occur on the Edinburgh groats with the trefoil-pointed tressure obverse. None of these, so far as regards this hoard, are connected with the aquiline, or intermediate portraits; but of coins with the round, chubby style of head, we have the following varieties of reverse—partly from dies belonging to the three-pellet-pointed tressure series, and partly from dies proper to the trefoil-pointed tressure coinage.

1. *Obverse*: words divided by saltires and pellets.

Reverses.

- | | | |
|----|---|----------|
| 1. | Words divided by fleurs-de-lis and crescents (small top-heavy A), | 3 coins. |
| 2. | " " fleurs-de-lis (small top-heavy A), | 5 " |
| 3. | " " two saltires (small top-heavy A), | 4 " |
| 4. | " " saltires, pellets, and semi-pellets, variously combined, | 2 " |
| 5. | " " two pellets, | 3 " |
| 6. | " " three pellets, | 2 " |
| 7. | " " three and two pellets, | 2 " |
| 8. | " " two annulets, | 3 " |

II. *Obverse*: words divided by two pellets.*Reverse.*

1.	Words divided by two saltires (small top-heavy λ),	16 coins.
2.	" " saltires and pellets,	1 "
3.	" " saltires, pellets, and semi-pellets, variously combined,	3 "
4.	" " three and two pellets,	3 "
5.	" " two annulets,	2 "
		25

III. *Obverse*: words divided by two annulets.*Reverse.*

1.	Words divided by two pellets,	2 coins.
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The reverses of Nos. 1, 2, 3, Class I.—and of No. 1, Class II., are from dies belonging to the three-pellet-pointed tressure series. It is of especial importance to take note of the fact that the λ in the inscriptions on these reverses is the small top-heavy of the later described groups in that series. On the earlier groups of the three-pellet-pointed tressure coinages, with the words on reverse divided by saltires, the λ is the firm, compact λ of the Robert II. period. It is plain, therefore, that the interchanges of dies, as above, with trefoil-pointed tressure obverses, can not have taken place with respect to these. The only coins with the three-pellet-pointed tressure obverse, which have the words on reverse divided by two saltires, and have also the small top-heavy λ in the inscriptions, are those in the last-described group of that series, with the aquiline head. On these the tressure round the bust is of nine arcs. This is also the tressure on the groats with the words divided by fleurs-de-lis, and on a number of those with the words divided by fleurs-de-lis and crescents. All these nine arc three-pellet-pointed tressure groats have the small top-heavy λ in the inscriptions; and it is with reverse dies, in connection with these varieties, that the above-described interchanges with trefoil-pointed tressure obverses have been made. The manner in which these interchanges occur serves to show what must have been the respective order of issue of the several groups in the trefoil-pointed tressure series itself. In Class I. three inter-

changes with reverses, connected with three different varieties of the three-pellet-pointed series, occur; in Class II., one only; in Class III., none. How, or why, these interchanges should have been made forms a subject of curious inquiry, in which some may be disposed to interest themselves. What more immediately concerns us here is the fact that they did take place. Taken in connection with similar interchanges observable on the gold coinages of this reign, these interchanges strongly favour the suggestion of there having been a concurrent issue, to some extent, of the three-pellet-pointed tressure, with the trefoil-pointed tressure coinages. The smoother finish, and more delicate execution, of the dies of the latter series, renders it very probable that a different hand had been employed in their fabrication from that by which the dies of the former series were produced.

A few more coins still remain to be described. These are apparently the latest of the Robert III. groat coinages in the Fortrose hoard. With aquiline head, as on the Perth groats with the crosses in the angles of tressure, and with very similar lettering on obverse, as on these, except that here and there letters of a bolder character are introduced, we have groats of Perth, with tressure of six arcs, not all round; some with trefoil on breast, and some with the breast plain. These are of the trefoil-tressure coinage, but the trefoils are very sparingly employed, most of the points of tressure being without ornamentation. The lettering on the reverses of these pieces is chiefly of a mixed description, like that on obverse. Some have , and some —these characters taking the place of the P in PECTOR. With same bust and lettering, we have also in this hoard groats of Aberdeen; some with tressure of seven arcs, not extending below the bust, the points fleured with trefoils, words divided by two crescents; some with what seems to be a tressure of eight arcs, the lower arc extending below bust, and the points fleured with trefoils as above, words divided by single crescents—in both cases, with  on reverse, which, as before, supercedes the P. There is an Edinburgh groat in this hoard of the annulet in tressure series, with cross instead of trefoil on breast, which corresponds

exactly with these Aberdeen groats in fabric, bust, and lettering. Next, in order of issue, seems to be the Perth groat, in this hoard, with the lettering in a bolder style than before, words on obverse divided by two saltires, one saltire only after ROBERTVS; words on reverse divided by two crosses; ∇ for P, and also before LIB. The tressure on this coin is of nine arcs, entirely surrounding the bust, with none of the points fleured; the breast plain. With this aquiline head, and apparently of still later issue, we have Perth groats of ruder execution in every respect than the preceding, and with the lettering of a more mixed description. The legends on these rude coins, so far as here represented, are usually more or less blundered, chiefly on reverse. Some with EI for DEI are without any divisions between the words, but with two crosses, and two saltires, after SCOTTORVM; and with two crosses, sometimes accompanied with saltires, interspersed, here and there, in the inscriptions on reverse. The tressure on the above groats is remarkable for the small size of the arcs; in this respect corresponding with the tressure on the very light groats with aquiline head, of which we have no specimens in this hoard. One Edinburgh groat in the Fortrose hoard, with this tressure, the points plain, has the identical same lettering as on the Dumbarton light groat with aquiline head in the collection of this Society; and a Perth groat, with tressure of nine arcs all round the bust, the points plain, has the lettering closely resembling that on the very light Edinburgh groat with aquiline head, with the eight arcs tressure not here represented. These two coins must therefore be regarded as the very latest groats with the aquiline head in the Fortrose hoard. It is scarcely probable that any great interval should have elapsed between the issue of these and the issue of the very light groat coinages with same head. And yet, while the light groats—distinguishable from these also by their smaller module—weigh only about 30 grains each, these two pieces are of the respective weights of 43½ and 37 grains. Of the lighter of these, there is a specimen in the Society's collection weighing 40 grains.

I may here remark that, all through, the several groups in the Fortrose hoard, whether of the three-pellet-pointed tressure series, or of the trefoil-pointed tressure series, or of the coins last described, displayed a remark

able conformity in their average weights. The coins of any particular group seldom fell below an average weight to each coin of 41 grains, or rose above an average weight to each of 42 grains. This was the more surprising, viewed in connection with the extraordinary differences of weight of individual coins, more particularly in some of the larger groups. In the three-pellet-pointed tressure series, two groats, with the words divided by fleurs-de-lis and crescents—from almost identical dies, and of corresponding module, weighed severally 52 and 29 grains. Any one looking at these two groats, as placed under glass, would have been puzzled to say which was the heavier and which was the lighter coin. This conformity, in the aggregate weights of the coins in each of the several groups, shows that no change in the standard weights of the Robert III. silver coinages had occurred throughout all the period represented by this hoard, which, as we have just seen, brings us very close to the time when the very light coinages of Robert III. were introduced. It is not probable that any change of weight took place in the interval. Many of the coins in this hoard have suffered from detrition, in the ordinary course of currency, and many bear evidences of having been clipped. By the Act 24 Oct. 1393, 21 shillings, or 63 groats, were ordered to be made out of every six ounces of *pure* silver, these coins to be of *good* silver as in the reign of David II. The standard of fineness by which David II. professed to make his coins was the same as that of the English sterling, consisting of 11 oz. 2 dwt. of fine, or utterly pure silver, to 18 dwt. of alloy, that is, of $\frac{37}{40}$ parts pure silver to $\frac{3}{40}$ parts alloy. The weight of the ounce at this period was equivalent to 450 grains Troy weight. Six ounces of pure silver would thus give 2700 grains Troy; to which, adding the alloy in the proportion as above, we get $202\frac{1}{2}$ additional grains, or $2902\frac{1}{2}$ grains in all, and dividing this by 63, the number of groats to be made out of every six ounces, we find that the standard weight of the groat, as ordained by the Act 24 Oct. 1393, was $46\frac{1}{14}$ grains. If we are to understand the terms “pure” and “bono,” in the Act, as meaning the same thing, then the standard weight would be $42\frac{6}{7}$ grains. But as so many groats of Robert III. exceed the standard of $42\frac{6}{7}$ grains, it is more probable that

the proper standard, as given above, was $46\frac{1}{4}$ grains. In England, however, by the statute of 1390, the Scottish groat was ordered to be current at only half the value of the English groat—the standard weight of the English groat being then 72 grains Troy. The quality, as well as the quantity, of the silver in the Scottish groat has to be taken into consideration in this case; as also that, this being a protective measure, the English naturally made a good allowance in their own favour. In 1398, the ordinance to reduce the current value of the Scottish money to one-half, in England, was again enforced; from which we may understand that between 1390 and 1398, the intrinsic value of the Scottish groat had remained much the same; also, that it is to the silver coinage attributed to Robert III. that the English Act, 1390, relates. Some of the money ascribed to Robert III. may, however, have been struck under Robert II. I am not aware of the exact date of the English statute of 1390, but Robert II. died in that year—on the 13th of May, according to Balfour—and Robert III., according to the same authority, was crowned on the day of the Assumption of the Virgin, which by the Roman and Greek Catholic churches is celebrated on the 15th of August. The dies for these front face coinages must have taken some time to prepare,¹ and some further time must have elapsed before the hue and cry in England against these coins became so strong as to result in the Act of 1390, by which the value of the Scottish groat, which previously to this had been received at three-fourths of the current value of the English groat, was reduced to one-half.

Among the later groats of Robert III., in the Fortrose hoard, are certain coins, which from their style of lettering, and general execution, were probably issued at about the same time as the later coins with the aquiline face, described above. The head on one variety is an evident imitation of the rude head on the more common groats of the three pellet-pointed tressure series—fitted, however, with the crown, curls, and bust of the trefoil-pointed tressure groats. There are of this variety, in this hoard, groats of Aberdeen, with tressure of eight arcs, not extending below the

¹ The year, old style, it is also to be remembered, commenced on 25th March, not on 1st January as now.

bust, and with the points plain. These have no divisions between the words on either side. They read *scō* in obverse legend, and *DOMINVS PROTECTOR MEV* in the outer legend on reverse. With the same head and adjuncts, and with the same pointless tressure—but in this case, apparently consisting of nine arcs, and extending below bust—we have groats of Perth—three specimens, all from the same obverse die, but with different reverses. The obverses read *scOTORVM*, and have single crosses between the words. Two of the reverses have the ordinary inscriptions—in the one case with the words divided by two crosses, in the other with the words divided partly by two saltires and partly by two crosses. The remaining reverse, as on the Aberdeen groats, has *DOMINVS PROTECTOR MEV* in the outer circle, the words not divided, but with two crosses after *PERTH*.

Of still later issue—as shown by the greater correspondence of the lettering with that on the very light groat coinages of Robert III.—are certain groats in this hoard, chiefly of the Aberdeen mint. These present several slight varieties of head, all bearing a greater or less resemblance to the round, chubby face on the first-described coins in the trefoil-pointed tressure series. These also have trefoils on the points of tressure, but of a ruder and less compact form than on the earlier coins. With a rather longer style of face than on the others of this class, we have two varieties of Aberdeen groats, both with the words on obverse divided by two crescents; but while the one has the words on reverse also divided by two crescents, the other has three pellets between the words of reverse. The tressure on these is of seven arcs, with what may be called another arc stretching in a single line below the bust. There is also an Edinburgh groat with this obverse, with the words, as above, divided by two crescents; and, on reverse, partly by three and partly by two pellets. This is the only instance of an Edinburgh groat of Robert III. that has come under my notice with the words on obverse divided by two crescents; which is, rather, a characteristic of the Aberdeen mint. With larger and rounder face, and with the lettering still more approximating to that on the very light Aberdeen groat mintages, we have also in this hoard groats of Aberdeen and Edinburgh. The Aberdeen groats have the words on both sides divided

by two crescents; the Edinburgh groats have the words on obverse divided by three pellets, and, on reverse, partly by three and partly by two pellets. On these the tressure is of seven arcs, not surrounding the bust, and with what resemble small fleurs-de-lis, rather than trefoils, on the points. And with very similar head to the preceding, but with a more marked expression, we have groats, all of Aberdeen, with the lettering, except with respect to one or two of the characters, identical with that on the very light groat coinage of Aberdeen with the small head and bust in the James I. style. The same punches might have been, and very probably were, employed for the lettering on both. These are certainly the latest groats of Aberdeen in this hoard, and they are the last groats I have to describe. Two specimens, with tressure of seven arcs, trefoiled, not surrounding the bust, have the words on both sides divided by two crescents. One other, with the same tressure, has no divisions between the words on obverse except a peculiar character 9 after GRA, which, with a slight stretch of fancy, might be regarded as the Arabic numeral Q (4), with the stroke to right not sufficiently struck up!—and had there been a Robert IV. in immediate succession to Robert III. on the Scottish throne, there is very little cause to doubt but that this character would have been so regarded. The only ornaments dividing the words on reverse of this coin are two pellets after DNS, and two after DE. With a tressure of eight arcs, trefoiled, and not surrounding the bust, we have another piece, which, on obverse, has the words divided by three pellets, and, on reverse, by crescents and pellets $\curvearrowright$. . . These four coins weigh respectively, $41\frac{3}{4}$, $43\frac{3}{4}$, $37\frac{1}{4}$, $40\frac{1}{4}$ grains.

The only two half-groats in this hoard, among the coins submitted to me, belong to the trefoil-pointed tressure series. One of these is of the Perth mint, with tressure of seven arcs, surrounding the bust, trefoil on breast, and with the words divided by two crosses. The other is of the Edinburgh mint, with tressure of seven arcs all round, an annulet on breast, and with the words divided by two annulets. The head on both pieces is the round, chubby head as on the first-described groats of the trefoil-pointed tressure coinage.

The contents of this hoard, so far as the coins came under my inspection, are as follows—Groats: Edinburgh, 669; Perth, 190; Aberdeen, 19. Half-Groats: Edinburgh, 1; Perth, 1—in all 880 coins. These embrace about 240 distinct varieties, of which a detailed account, with autotype illustrations, will appear in the "*Archæologia Scotica*"; together with a notice of the coins in the Montrave hoard, which comprises the period of Scottish numismatic history almost immediately previous to this, extending from Alexander III. to David II. This hoard includes also many English, Irish, and foreign coins in circulation at the same time with the Scottish, in all about ten thousand coins.

Among the Fortrose coins were several pieces which had been struck over groats of Robert II. In every instance these related to the trefoil-pointed tressure series. Of the Perth mint, with the round, chubby style of head, with the words divided by two crosses, I noticed four coins thus struck over. Of the Edinburgh mint, with this head, with the words divided by two annulets, there were two coins struck over in this way. Also, of the Edinburgh mint, with the long face, with words divided by two annulets, and with annulets in the angles of tressure, three coins. Of Perth, with the aquiline face, with the words divided by two crosses, and with crosses in the angles of tressure, seven coins. Of Perth, with the same head, with tressure of six arcs, words divided by two crosses, two coins. There were a number of pieces belonging to the same groups as these, and to similar groups, which had also the appearance of being struck over other coins; but, as no vestiges of the Robert II. type were apparent on any of these, I have passed them over. On some of the coins specialised, traces of the Robert II. profile were distinctly visible, although better shown on a Perth groat in the collection of Mr Taap, and still better on a Perth half-groat in the collection of Mr Coats, where the Robert II. profile head, sceptre in front, stands clearly out on the one side, without any appearance of the Robert III. front face head, while, on the reverse, in each of the angles of the cross, are three pellets, placed close together like trefoils, as on other Perth half-groats of Robert III. On others of the coins specialised, the large star, on the reverses of

the Robert II. groats, comes out through the Robert III. type, sometimes on the obverses; for in these re-strikes, they were not particular whether they struck a Robert III. obverse die over a Robert II. reverse, or a Robert III. reverse die over a Robert II. obverse. On others again, we find still remaining some of the large letters of the inscriptions on the inner circles of the Robert II. reverse. The letters on the legendary inner circle of reverse on the Robert II. groats were much larger than those in the outer legendary circle, or on the obverse. On the Robert III. groats this is not the case, the lettering on the inner legendary circle corresponding in size with that on the outer legendary circle of reverse. Where we find traces, therefore, upon restruck coins of Robert III. of this very large lettering, we may be as certain that they have been struck over coins of Robert II. as if we had seen upon them the Robert II. profile obverse, or the Robert II. stars on reverse.

The fact of Robert III. groats being struck over groats of Robert II. in this way, affords naturally a strong presumption that these were the earliest coins of Robert III. The coins in question belong to that group, where the three several heads on the trefoil-pointed tressure series are brought together, by similarity of lettering on obverse, and by certain irregularities of lettering on reverse, as well as by certain of the coins with each of these heads having annulets in the external angles of tressure—a very notable peculiarity, occurring on no other coins of Robert III. except on those of this particular period. If we are to regard these overstrikes as the earliest issues of Robert III., then we must reverse the order in which I have described the coins of the trefoil-pointed series, and also those of the three-pellet-pointed tressure series; for we will have to commence both series with the coins with the aquiline head, which is really the same on both, only fitted with different adjuncts, in respect of style of crown, arrangement of the curls, and formation of the lower part of bust. The mixed lettering on the reverses of some trefoil-pointed tressure groats, with annulets in the angles of tressure, as formerly remarked, page 194, is borrowed, in so far as it differs from the ordinary lettering of the trefoil-pointed tressure series, from the lettering on the nine arc tressure groats, placed last by

me, in the three-pellet-pointed tressure series. This lettering crops up again and again, on the ruder varieties of the aquiline head groats—the very latest varieties certainly of the trefoil-pointed tressure coins, for we find some of them approximating very closely to the groats with aquiline head of the very light Robert III. groat coinages. So that, if we place these other aquiline head groats of Robert III.—struck over groats of Robert II.—at the commencement of the Robert III. coinage, we separate them by a long way from the groats with same head, so manifestly connected with the very light groats of Robert III., and therefore to be regarded as among the very latest coins represented in this hoard. Further, by reversing the order in which the three-pellet-pointed tressure coins have been described in this paper, we place those, which have least affinity with the Robert II. coinages in style of crown and lettering, first, and those, which have the greatest affinity with them in these respects, last. After much consideration, I have preferred to follow what seemed to me to be the natural order of the coins, as shown by their relations one to the other; by their connection on the one side with the Robert II. coinages, and on the other side with the very light groat coinages of Robert III. Besides, at the commencement of a great re-coinage, accompanied by a marked reduction in the weights of the coins, such as was that of the change from the side to the front face, it was really more likely that a wholesale melting of the old currency should have ensued, than that it should have been initiated in such a slovenly piecemeal fashion as by merely clipping down and re-striking the old coins.

This hoard, although of great interest and value for the information it affords us respecting the silver coinages of Robert III., is of still greater importance for the light it throws upon the corresponding gold coinages. It has been mainly with the view of enabling us to have a clearer view of the correlations between the several gold and silver issues of the period, to which this hoard relates, that I have set forth, with the greater detail, the special features by which the various groups in the silver coinages are individually distinguished. In drawing up the following list of the correlative gold coinages, I have been greatly assisted by an examination

of the gold coins of Robert III. in the extensive collections of this Society—whose coins are here indicated by the letters S.S.A.—and of Mr Coats. My best thanks are also due to Messrs Carfrae, Kernack Ford, and the Rev. Mr Pollexfen, for kindly forwarding the gold coins of Robert III. in their fine cabinets for my inspection. I greatly regret that, owing to the absence from home of Mr Cochran Patrick, M.P., the coins in his valuable collection were not available, as by the uniform kindness of that gentleman they otherwise would have been, for the purpose of this paper.

GOLD COINAGE OF ROBERT III.

I. XPC. REGNAT, &c., on reverse.

1. St Andrew—long cross. Words on both sides divided by three pellets. Lettering as on the ROBERTVS groats of the three-pellet-pointed treasure series. ROBERTVS, also, as on these, for ROBERTVS. Types—crowned escutcheon with plain border; arrow-head ornaments between the fleurs-de-lis of the crown. The saint with moustache and pointed beard, and with close nimbus round the head like a cowl. Messrs Carfrae, Kernack Ford, and Pollexfen; same dies. Weights, from 60 to 60½ grs.

2. Lion—with the treasure. Words on obverse divided by two saltires; lettering as on the ROBERTVS St Andrews, except in having the usual B in ROBERTVS. Words on reverse divided by saltires and pellets—from same die as the reverse of the Lion in No. 10. S.S.A. Weight, 28 grs. The only other specimen known is in the collection of Mr Cochran Patrick.

3. St Andrew—long cross. Words on obverse divided partly by three pellets and partly by fleurs-de-lis and crescents; on reverse, divided by fleurs-de-lis and crescents only. Lettering as on the corresponding three-pellet-pointed treasure groats. Large A on obverse, small heavy-topped A on reverse. Crowned escutcheon exactly as on the St Andrew in No. 1. The saint with broad, beardless face, and long limp curls. S.S.A. and Mr Coats. Weights, 58½ and 60 grs.

4. St Andrew—long cross. Words on obverse divided partly by three pellets, partly by fleurs-de-lis and crescents. Lettering and type of obverse as on the St Andrews in No. 3. Reverse from same die as the reverse of the St Andrew in No. 1. British Museum. Weight 58·2 grs. (Described from an electrotype in the S.S.A. collection. Mr Stuart Poole kindly supplied the statement of the weight.)

5. Lion. Words divided partly by three pellets and partly by fleurs-de-lis and crescents. Lettering partly as on the preceding St Andrew, but principally of a smaller and more rounded character. Small heavy-topped A. Types—escutcheon on obverse with plain border; the trefoils on reverse large, with hollow spaces in the centres. S.S.A.; Messrs Coats and Pollexfen. Weights, from $28\frac{1}{2}$ to $30\frac{1}{2}$ grs.

6. Lion. Words on obverse divided as on the above; words on reverse not divided, but with lis and crescent after VINCI. Lettering and types as on the above Lion. Messrs Coats, Carfrae, and Kermack Ford. Weights, $28\frac{3}{8}$ to $29\frac{3}{8}$ grs.

7. Lion. Words on both sides divided by three pellets. Lettering and types as on the Lion in No. 5. Mr Coats. Weight, 30 grs.

8. St Andrew—long cross. Words on both sides divided by fleurs-de-lis and crescents. Lettering as on the corresponding three-pellet-pointed treasure groats. Small heavy-topped A on both sides. Types as on the St Andrew in No. 3. Messrs Carfrae and Coats. Weight $59\frac{1}{2}$ and 60 grs.

9. St Andrew—long cross. Words on obverse divided by two saltires; on reverse, not divided. Lettering, chiefly large, as on the three-pellet-pointed treasure groats with the aquiline head, and with the words, as on these, divided by two saltires; partly smaller and rounder, as on the Lion in No. 5. Small heavy-topped A on both sides. Types as the St Andrew in No. 3. Mr Coats. Weight, $57\frac{1}{2}$ grs.

10. Lion. Words on obverse divided by two saltires; on reverse, by saltires and pellets. Same lettering, and type of obverse, as on obverse of the Lion in No. 5. Same lettering on reverse as on the trefoil-pointed treasure groats with words divided by saltires and pellets. The trefoils on reverse, small and wasp-waisted. S.S.A.; Messrs Coats and Pollexfen. Same dies. Weights from $28\frac{1}{2}$ to $29\frac{1}{2}$ grs.

11. St Andrew—long cross. Words on obverse divided by saltires and pellets; on reverse, not divided. Lettering chiefly small, as on obverse of the preceding Lion; a few large letters intermixed, same as those on the St Andrew in No. 8. Same types as the St Andrew in No. 3. S.S.A. Weight, $59\frac{1}{2}$ grs.

12. Lion. Words on both sides divided by saltires and pellets. Lettering as on the trefoil-pointed treasure groats, of the smaller lettering, with words divided by saltires and pellets. The escutcheon with beaded border. Reverse from the same die as the Lion in No. 10. Mr Coats. Weight, $29\frac{1}{2}$ grs.

13. St Andrew—short cross. Words on both sides divided by three pellets.

Lettering on obverse of the same character as the St Andrew in No. 8. Small top-heavy A, but barred across the centre, and with GRACIA and double T in SCOTTORV. Neither the barred A, nor the double T in SCOTTORV, nor GRACIA are found on the three-pellet-pointed tressure groats in the Fortrose hoard, or on their corresponding gold issues.¹ Lettering on reverse as on the trefoil-pointed tressure groats with words divided by two, and sometimes on reverse by three pellets. Crowned escutcheon with beaded border; of same size as the escutcheon on the Lion in No. 12; the crown with neat trefoils between the fleurs-de-lis. The saint's head small, and with pointed beard, and loose, flowing curls. S.S.A.; Messrs Carfrae and Coats. From same dies. Weights, from 57 to 61 grs.

14. St Andrew—short cross. From same obverse die as the preceding. Words on reverse divided by three pellets, with same style of lettering as on last. Same type of head on the saint, but with nimbus. Mr Carfrae. Weight, 57½ grs.

15. St Andrew—short cross. Words on both sides divided by two crosses. Lettering as on the trefoil-pointed tressure groats, which have the words divided by two crosses; or of same character as on the two preceding St Andrews. The cross with beaded lines; otherwise, the types on obverse and reverse are the same as on the St Andrew in No. 14. Messrs Coats, Kermack Ford, and Pollexfen. Weights, from 59½ to 60 grs.

16. Lion. Words on obverse divided by two crosses, with three pellets after D: words on reverse divided by three pellets. Lettering and types as on the Lion in No. 12, save that the escutcheon is somewhat smaller. Mr Coats. Weight, 27¼ grs.

17. Lion. Words on obverse divided by two pellets; on reverse, not divided, but with small fleur-de-lis—with pellet below—after the last XPC, and after VIN. Lettering very full and round, as on the last described Aberdeen groats in the Fortrose hoard, page 200. The identical style of lis on the reverse of this piece occurs in the legend of reverse on one of the very light Aberdeen groats, with bust approximative to the James I. bust, specimens of which are in the collection of Mr Coats. Escutcheon with plain border. The trefoils in the angles of cross on reverse small, but with hollow centres. S.S.A. Weight, 25½ grs.

18. Lion. Words on obverse divided by fleurs-de-lis, with pellets below. The

¹ The peculiarity of the obverses of the short cross St Andrews, with words divided by three pellets, is, that the lettering should belong to the three-pellet-pointed tressure groats—save that the A is barred across, instead of open—while the form of the legend itself belongs to the trefoil-pointed tressure groats.

reverse of this piece is from the same die as the reverse of No. 17. The lettering on obverse has the feet of the B. D and R forked. S.S.A. Weight, 22 $\frac{3}{8}$ grs.

19. Lion. Pellet after ROBERTVS; trefoil, or lis, after DEL. No divisions between the words on reverse. Lettering exactly as on the very light Aberdeen groats, with the busts approximative to those on groats of James I. Plain escutcheon. The trefoils on reverse, small and wasp-waisted. S.S.A. Weight, 23 $\frac{1}{4}$ grs.

20. Lion. Words on obverse divided by single pellets; on reverse, not divided. Lettering as on last Lion. The escutcheon with headed border. The trefoils on reverse as on last Lion. Mr Coats. Weight, 18 $\frac{3}{8}$ grs.

21. St Andrew—without the cross. Words on obverse not divided, but with very rude lis—more resembling a cross—before and after legend, and after GRACIA. Words on reverse not divided, but with a pellet after C REGNAT X. Lettering as on the very light Edinburgh groat, with 12 arc-tressure, in the collection of Mr Coats, or, as on the Dumbarton groats. Cross paty potent before legend on obverse. Escutcheon with beaded border. The ornaments on the spaces of crown between the lis very rude—doubtful whether crosses, or fleurs-de-lis, or slipped trefoils. The saint with short, pointed beard, and curly hair close to the head. Very small module. S.S.A. Weight, 42 $\frac{1}{8}$ grs.

22. St Andrew—without the cross. Obverse from same die as last. Words on reverse not divided, but with two pellets before and after RX, two after legend, and one before the first hand. Same lettering as on the preceding St Andrew; the tail of the R on reverse rather clumped, as on the R on the very light 8 arc-tressure groat of Edinburgh, with single pellets on the points, in the collection of Mr Pollexfen, and on some Dumbarton groats. Module very small, but rather larger than that of the preceding St Andrew. Mr Coats. Weight, 34 $\frac{1}{4}$ grs. This coin was formerly in the collection of Mr Wingate, although it does not appear in his work on the Coinage of Scotland. It was regarded by Mr Wingate as a half St Andrew of Robert III. and was sold at his sale as such, along with another very light St Andrew, also regarded by Mr Wingate as a half St Andrew of Robert III., and published by him in his *Illustrations*, pl. xii. 5. This last coin was formerly in the collection of Mr Lindsay, and appears in Lindsay, pl. xii. 12. The types are exactly as on the DOMINVS PROTECTOR St Andrew described below, No. 26. An autotype of a piece, similar to the St Andrew No. 22 of this list, will be found in pl. ii. 18, accompanying Mr Cochran-Patrick's *Records of the Coinage of Scotland*. Mr Cochran-Patrick states that the coin autotyped by him, was in

the collection of Mr Wingate, but, if so, it is certainly not the same piece as the St Andrew No. 22, now in the collection of Mr Coats, which has the inscription on reverse differently rendered, and is in every respect a much finer coin.¹ Mr Cochran-Patrick, in a note remarks—"The half St Andrew is a doubtful appropriation. It is more probably the same coin as No. 12"—(the Dominus Protector St Andrew)—"although differing in legend."

II. DNS. PTECTOR, &c., on reverse.

23. St Andrew—without the cross. Words on obverse divided by two fleurs-de-lis, with the stems opposed. Single lis at end of legend. Words on reverse not divided, but with two pellets after DNS. Lettering as on the two preceding St Andrews, but with the *r* freer and fuller, and with an *x*, of the same rounded form as on the Dumbarton groats, substituted for the + before LIBATOR. Cross paty potent before legend on obverse as on the St Andrew No. 22. Escutcheon with plain border—the fleurs-de-lis in tressure of the same peculiar trefoil form as the opposed fleurs-de-lis in the inscription. The spaces of crown pointed with neat trefoils. S.S.A. Weight, $32\frac{1}{2}$ grs.

24. Lion. Words on obverse not divided; on reverse, divided by pellets—two after DNS, one after *r*, and two at end of legend. Lettering as on above St Andrew. Cross paty potent before legend on obverse, and after legend on reverse. Escutcheon with plain border—the fleurs-de-lis in tressure of the same form as on the tressure of the preceding St Andrew. Wasp-waisted trefoils in the upper and lower angles of cross on reverse. S.S.A. Weight, $17\frac{1}{2}$ grs. This is the coin described by Nicolson in his "Scottish Historical Library"—formerly in the collections of Professor Sutherland and of the Faculty of Advocates. It is not mentioned by any succeeding writer on Scottish coins, save by Mr Cochran-Patrick, in whose cabinet another specimen exists.

25. St Andrew—without the cross. Words on both sides divided by two rude fleurs-de-lis—more resembling crosses—exactly as on the very light 8 arc-tressure Edinburgh groats. Lettering also much the same as on these groats except that the *a* is small and top-heavy, with the *n* closer, and the *r* looser. Cross fourchy before legends. Escutcheon with plain border. A single pellet on each of the arched spaces of crown, exactly as on the points of tressure of the

¹ The coin autotyped, pl. ii. 18, by Mr Cochran-Patrick seems to be the same as a specimen in the British Museum, of which there is an electrotype in the collection of this Society.

very light Edinburgh groats. The saint, slightly bearded, and with long, loose hair. S.S.A. and Mr Coats. Weights, respectively 38 and 34½ grs.

26. St Andrew—without the cross. As last, but the saint, with broad beardless face, and long, limp curls, as on the St Andrew in No. 3. Several minor varieties. S.S.A. ; Messrs Coats and Ford. Weights from 32 to 36½ grs. The types of the so-called Half St Andrew, engraved in Lindsay and Wingate, see remarks, No. 22 above, are the same as on this St Andrew—so far as may be judged from the plates—and have the words, obverse and reverse, divided by two pellets—a very common manner of dividing the words on Dumbarton-groats.

27. St Andrew—without the cross. As last, but with arrow heads on the spaces of crown. Messrs Coats and Pollexfen. Weights 29 and 29½ grs.

In the above list I have mentioned only such coins as I have had the opportunity of personally examining, and comparing with the corresponding silver coinages. To some it will be a surprise to find the St Andrews, ascribed by Cardonnel, Lindsay, and Wingate to Robert II., here restored to Robert III. I am glad, however, to observe that Mr Cochran-Patrick, who has autotyped a specimen of the St Andrew No. 26, see pl. ii. 12, of the illustrations to the "Records of the Coinage of Scotland," while following Cardonnel and the others, in placing that coin under Robert II., expresses the opinion, that "It is doubtful whether the St Andrew is rightly appropriated." I regret, however, to observe that, misled by an obscure reference in the Acts of 1393 and 1398, to certain gold coins, described there by the general term of "obuli," or "mailes," and which, like the "scuta"—larger coins of the same kind, and more particularly defined in the Act 1398, as "Scuta Brabancie," were evidently foreign coins—Mr Cochran-Patrick has followed Cardonnel, Lindsay, and Wingate, in ascribing the smaller pieces, or Lions, with the XPC REGNAT inscriptions, to Robert II.; while, at the same time, attributing, and correctly, the larger coins, with identically the same inscriptions, fabric, lettering, and ornamentation, to Robert III. That the smaller pieces are really the halves of the larger pieces, the foregoing list satisfactorily demonstrates. What we find is this. So far as the gold issues correspond, in fabric, lettering, and ornamentation with the groats of the regular

silver issues—comprising the St Andrews and Lions Nos. 1 to 16 of the list—so far the larger pieces maintain a proportion of weight just double that of the smaller pieces. When we come to the coins with the DNS. PECTOR legends, we find that the Lion No. 24 gives a weight just about one-half of that of the corresponding St Andrews Nos. 23, 25, 26. The Lions Nos. 17, 18, 19 were probably struck during the period that intervened between the issue of the last Aberdeen groats in the Fortrose hoard, and the issue of the very light groat coinages not there represented. The Lion No. 20 approaches in weight so closely to that of the Lion, No. 24, that we may conclude no long interval could have ensued between the issue of the one and of the other. And so, also, with the issue of the XPC REGNAT St Andrew No. 22, and of the DNS PECTOR St Andrew No. 23. The St Andrew No. 21 is an exceptional piece, struck just before the permanent reduction of the weights of the gold and silver coinages. It is the link between the St Andrews, whose weights correspond to that of the standard of 1393, and the very light St Andrews represented by Nos. 22, 23, &c. At the same time, with a weight of $42\frac{1}{2}$ grains, this coin completely demolishes the theory that the St Andrew No. 22, from same obverse die, weighing $34\frac{1}{4}$ grains, and the corresponding piece—Lindsay, pl. xii. 18, and Wingate, pl. xii. 5, weighing 33 grains, are half St Andrews of Robert III. A theory, moreover, untenable on its own ground, for on this hypothesis the weights of these pieces would give St Andrews of the respective weights of $68\frac{1}{2}$ and 66 grains.

In terms of the Act, Oct. 1393, the St Andrew—or, as it ought rather to be called, the Lion, the name given to it in the Act, while what is now known as the Lion ought properly to be called the Half Lion—was to have course for five shillings, so that two Lions, or St Andrews, should be worth ten shillings of the same money, and should be worth more than the Noble by three pennies. The English Noble, it was further ordered, was to have currency for nine shillings and sixpence. Now the standard weight of the Noble of England, at that period, being 120 grains, it follows that two Lions, or St Andrews, in order to have exceeded in intrinsic value the English Noble by three pence, ought each to have been of the standard

weight of, say, a little less than $61\frac{1}{2}$ grains. At this very time the Ecu à la Couronne of France—the coin from which the Lion, or St Andrew, has manifestly been imitated—was struck, according to Le Blanc's Tables, in the proportion of $61\frac{1}{3}$ to the marc, consisting of 4608 Paris grains, which, as shown by Napier of Merchiston's calculations,¹ was equivalent to $3769\frac{1}{4}$ grains Troy—giving a standard weight to the Ecu à la Couronne of $61\frac{2}{3}\frac{5}{8}$ grains Troy. According to Le Blanc, the Ecu à la Couronne was itself a coin of comparatively recent introduction in France. He writes, "Cette monnoye fut ordonnée par Lettres expédiées à Paris le xi. Mars 1384"—or, new style, 11th March 1385. The obverse of this piece had for type a crowned escutcheon—whence the name of the coin—with the king's name and titles on the legendary circle round the edge. The inscription on reverse was *xpc. vincit. xpc. regnat. xpc. imperat*—a favourite legend on French coins—being "le mot de l'armée," according to Foulcher, as quoted by le Blanc, of the Christians in a battle with the Saracens in the reign of Philip I. At its first issue, the Ecu à la Couronne was struck in the proportion of 60 to the marc, representing an average weight of $62\frac{1}{2}$ grains Troy, which ratio was preserved till 28th February 1387—new style 1388—when the number of Ecus coined out of the marc was increased to $61\frac{1}{3}$, which was the ratio maintained till the 5th September 1394, when the number was still further increased to 62, giving an average weight to each coin of $60\frac{4}{5}\frac{1}{2}$ grains Troy. No further change took place till 7th November 1411, when 64 Ecus were fabricated out of each marc. It is a pity that the framers of the Act, Oct. 1393, of Robert III., in their anxiety to have the Scottish Lion, or St Andrew, placed upon a par with the English Nobles and half Nobles, in respect of mutual currency, should have so completely overlooked all mention of the French origin of the piece. Had this been clearly stated, and keeping in view that the French Ecu à la Couronne was itself a coin of such comparatively recent introduction, and that so many of our Scottish Crowns with the St Andrew, with the *xpc regnat* inscriptions, correspond so closely in their weights with the

¹ Cochran-Patrick's Records of the Scottish Coinage, vol. i. p. 85.

standard weights of the French crowns of 1387-94, it could not but have been accepted as self-evident that these Lions or St Andrews with their halves, thus corresponding, must have been the earlier issues of the Robert gold series. And with this other fact, kept prominently in view, that the DOMINVS PROTECTOR Lions, or St Andrews, in their fabric, lettering, and ornamentation—in their smaller module and reduced weight, correspond so closely with certain varieties of the very light groats of Robert III., as shown in the preceding list, it would surely never have entered the head of any one to have assigned them to any other than their proper place, that is, at the very end of the gold coinage of Robert III. If any of these Lions, or St Andrews, are to be assigned to Robert II. at all, it is probably the coin No. 1 of the preceding list, with the ROBERTVS inscription, and the close nimbus, like a cowl round the saint's head. The head of the saint on these pieces is very different from that on any of the other Lions, or St Andrews. It does not seem quite clear, from the wording of the Act, Oct. 1393, whether the gold coin, there ordered to be fabricated, had been in previous issue or not—"Etiam fabricata erit de bono auro una pecia vocata leo"—"*called a Lion,*" as if this already had been a recognised name for the coin. There is a coin published by Le Blanc, p. 154, No. 1, wonderfully resembling our Lion with the tressure. The type of obverse is a shield of the same form as on the Scottish coin—charged with six fleurs-de-lis, arranged in three lines—and, as on the Scottish coin, surrounded with a tressure of eight arcs, reading LUDOVICVS, &c., in the legendary circle. On reverse, it has a cross fleury within inner circle, with a fleur-de-lis in each angle, and reads XPC VINCIT, &c. Le Blanc ascribes this piece to Louis VI. or VII. (1108-1180), but remarks that if any one should prefer to attribute it to Louis VIII. (1223-1226) he would not object. He gives the weight of the coin as 76 grains Paris, equal to about 62½ grains Troy. He says that he regarded it as the most ancient "Monnoye d'or" of the third Race that he had seen. No other coin, with an escutcheon for type, is published by Le Blanc till the Ecu à la Couronne makes its appearance under Charles VI. Unfortunately, even if we reject the

attribution to Louis VI., VII., or VIII., we can find no other Louis whose reign fits in with the period of issue of the Scottish Lion with the treasure. Louis X. reigned 1314-1316; Louis XI. 1461-1483. It seems a very strange thing that two French types, separated from each other, in point of issue, by some 200 years, should have appeared on the Scottish coinage at one and the same time.

The earliest mention of a Scottish gold coinage is found in a proclamation of Edward III., 1372, forbidding all money of Scotland, whether of gold or silver, to be received in England except as bullion. This event took place in the second year of Robert II. The only Scottish gold coins to which this Act could apply are the Nobles of David II. On these I now propose to make a few remarks. Through the kindness of Mr Carfrae, I have been enabled to make a very minute examination of the Noble of David II. in his fine and rare cabinet of Scottish gold coins, the only specimen, save one, known to be in private hands. The lettering on obverse of this piece is of that broad, firm character, distinctive only of the very earliest groat issues of David II. The ornaments dividing the words on obverse are small saltires of the finely-rounded form that we find only on the earliest groats—resembling quatrefoils rather than saltires. The lettering on reverse, although very similar, at a first glance, to that on obverse, is of a lankier and more acute character, with sharp projecting points. The *x* is the Roman *x*, but without the connecting cross bar—a style of *x* frequently found on the Nobles of Edward III. The ornaments, dividing the words, are small annulets, along with two small saltires, very rude and scraggy, before *IBA*. Neither the Roman *x*, nor the annulets between the words, occur on the silver coins of David II.

Owing to the very great rarity of the Nobles of David II., it has been generally supposed that they were struck as patterns rather than as current coins. Mr Lindsay remarked of them—"Some indeed have considered these fine pieces as medals, and not intended for general circulation, but it is far more probable that they were struck as patterns with a view to their being adopted as a portion of the currency, and at the end of David's reign." The results, however, of the examination of the Montrave hoard,

which contains none of the later coins of David II.—those with the old, or Robert II. head—would have been accepted, I feel assured, by Mr Lindsay, had they been known to him, as disproving the opinion, that the Nobles of David II. were struck merely as patterns, and at the end only of David's reign. By the time the Montrave hoard had been deposited, the average weight of the coins had undergone a sensible diminution. From this circumstance, and other considerations, we have no difficulty in determining which were the earlier and which were the later coins in that find. Now, as above observed, the lettering and ornamentation on the obverse of Mr Carfrae's Noble of David II. correspond with the lettering and ornamentation on the earlier groats of David II., while the lettering on reverse is of that more acute character belonging to the later groats of David II. in the Montrave hoard. This would seem to indicate a consecutive issue of David II. Nobles; which is the more probable, as one of the two specimens in the British Museum, of which there is an electrotype in the Museum of this Society, has the lettering on both sides of the round, full character found only on the earlier groats. At all events, these pieces, and their parts, if they had any, as in all likelihood they had, in common with the English Nobles, appear to have been the only native gold currency in Scotland till the introduction of the Lions or St Andrews, and smaller pieces with name of Robert.

When Archdeacon Nicolson, in 1702, in his "Scottish Historical Library," published the first detailed account of Scottish gold coins—for information respecting which he was indebted to Professor George Sutherland, whose valuable collection of Scottish gold and silver coins, formerly in the cabinet of the Faculty of Advocates, now forms part of the collection of coins belonging to this Society—he expressed it as his opinion, that the Lions or St Andrews, and smaller pieces, with the DOMINVS PROTECTOR inscriptions, had been struck under Robert II., and that the Lions, or St Andrews and smaller pieces, with the XPC REGNAT legends, were to be ascribed to Robert III. Anderson, whose "Numismatum Scotiæ Thesaurus" appeared in 1739, does not furnish representations of any of the DOMINVS PROTECTOR pieces, while he applies

the general term ROBERTORVM to the others. Snelling publishes in his first plate of Scottish gold coins, one DOMINVS PROTECTOR Lion, or St Andrew, along with several XPC REGNAT Lions, or St Andrews, and smaller pieces, as previously given by Anderson, and ascribes the whole to Robert III. Snelling's work on Scottish coins came out in 1774, just after his lamented death. No letterpress descriptions accompany his plates on the gold coinage. His editors simply announced that no materials sufficient for a complete illustration being left, they must confess their inability to explain them. Regarded, however, as the opinion of a man of great practical sagacity, who, in the course of a most extensive experience, had many opportunities of comparing the various gold coinages bearing the name of Robert, with the acknowledged silver issues of Robert III., and observing how closely, all through, the one agreed with the other, the decision arrived at by Snelling, that the several gold issues, with name of Robert, were all to be assigned to Robert III., might well have received more respectful consideration than it seems to have obtained from subsequent writers on Scottish numismatics. Cardonnel, in his "Numismata Scotiae," which was published in 1786, twelve years after Snelling's work, ascribed the DOMINVS PROTECTOR Lions, or St Andrews, to Robert II.; and, without the slightest reason assigned—and now done for the first time—he separated the smaller XPC REGNAT gold pieces from the larger, giving the former to Robert II., and the latter to Robert III. How such an extraordinary and unprecedented blunder could have been committed it is difficult to understand. The smaller and larger XPC REGNAT gold pieces occupy a much more palpably evident relation to each other, as the respective halves and wholes of the same coins, than do the English quarter Nobles to the corresponding half and whole Nobles. In the one case we have identity of legends, with close similarity of types; in the other case we have neither. And yet, with scarcely an expressed misgiving, this absurd arrangement of assigning the halves to one reign, and the wholes to another reign, has been accepted by every succeeding writer on Scottish numismatics. Lindsay made the confusion still more confounded by inventing a new coin, as he did, by describing the very light

XPC REGNAT Lions, or St Andrews, as Half St Andrews; and by giving, to what was really the Half Lion, or Half St Andrew, the name of the Lion itself. Indeed, so habituated have Scottish numismatists become to the use of the term Lion, as applied to these smaller XPC REGNAT pieces—with the uncrowned escutcheon, and without the figure of the saint—that, for the purpose of making myself understood, I have, in the preceding list (pp. 206–211) employed the term Lion to denote these smaller pieces, and that of St Andrew to denote the larger pieces—with the crowned escutcheon, and with the figure of the saint. At the time, when these coins were current in Scotland, their names, as shown by the Scots Act of 1398, were respectively the Lion and the Demi-Lion. In the account of the trial of the Pix, 19 July 1438, the gold coins of James I. and II., now usually denominated Lions, are referred to as vulgarly called Dimyis—or Demi-Lions. This term, as appears from the said document, was also popularly applied to the halves of these pieces, now called Half Lions. Both the larger and smaller denominations are there characterised generally as “diversas pecias auri tam majores quam minores de aureis vocatis vulgariter Dimyis.” That both the larger and the smaller of these coins should thus have been designated, in popular parlance, by the common term of Dimyis, or Demi-Lions, is strongly suggestive of the fact that the name Demy, as applied to them, was only a survival of that applied to the smaller coins of Robert III., with corresponding type of obverse. The name Lion, which had been already appropriated to the larger coins of Robert III. with the St Andrew on reverse, was the name still given to the coins with similar types, issued in the succeeding reigns. In the Act 25th Oct. 1451, of James II., ordering a new coinage of these pieces, it is enacted, “that thare he strikyn ane new penny of gold callit a Lyone, with the prent of the Lyon on the ta side and the ymage of Sanct Andro on the tother side, with a side cote ewin to his fute haldande the samyn wecht of the half Inglis nobil.” In the same Act, what had been described in the trial of the Pix, 1438, as “diversa specias auri tam majores quam minores de aureis vocatis vulgariter Dimyis,” are designated, respectively, as Demies and Half Demies. It is of importance to observe that these Lions, with the image

of St Andrew, with a side, or long coat, were to hold the same weight as the Half Noble of England. In the Glossary, appended to the "Accounts of the Lord High Treasurer of Scotland, 1473-1498," edited by Mr Thomas Dickson, it is stated that the Demy was so named "probably from its being equal in value to half an English or Harry Noble"! If this were so, why were not the Lions, or St Andrews, as above described, also so named? I cannot think that such an explanation would have been offered, had not Cardonnel and Lindsay, between them, so completely shut out from view the true relation to each other of the larger and smaller gold pieces of Robert III., as the respective wholes and halves of the same coins, that the true and proper Scottish origin of the name Demy has been entirely lost sight of. For the future, in numismatic works treating of Scottish coins, it were much to be desired, for the sake of clearness, that the new nomenclatures should be dispensed with, and the usage of the old names restored.

I may here remark that what Mr Lindsay has published as a Lion, or St Andrew of James I., is really a later coin than the corresponding piece attributed by him to James II. The former, in lettering and other respects, corresponds to the later groats of James II., struck after the standard weight of the Scottish groat had been raised to the English standard of 60 grains. The latter, in lettering, &c., corresponds with the groats with the draped and florid style of bust, which, being the latest Jacobus groats of the sceptre coinages, and the earliest Jacobus groats of the non-sceptre coinages, fall to be appropriated either to the end of the reign of James I. or to the beginning of the reign of James II., or partly to the one and partly to the other. The Lion, or St Andrew, of James IV., in the collection of this Society, of which Lindsay has given a representation (pl. xiii. 32), weighs $48\frac{1}{2}$ grains, not 76 grains as stated by Lindsay (page 280). Owing to this unfortunate mistake, Mr Lindsay describes the next coin in his plate, No. 33—a Lion or St Andrew, in the Cuff cabinet, weighing $50\frac{1}{2}$ grains—as a two-thirds St Andrew; and the next again, No. 33—a Half Lion, or Half St Andrew, in the cabinet of the Rev. Mr Martin, weighing $25\frac{1}{2}$ grains—as a one-third St Andrew. No such coins as the two-thirds and one-third St Andrew, either of James IV. or of any other reign, are known in the Scottish coinage.

V.

NOTICE OF AN URN, FLINT KNIFE, AND WHETSTONE, FOUND IN REMOVING A LARGE CAIRN AT STENTON. BY REV. G. MARJORI-BANKS, B.D. COMMUNICATED BY J. R. FINLAY, Esq., VICE-PRESIDENT.

This urn, flint knife, and whetstone were discovered in December 1877 in a mound on the farm of Meiklerigg, in the parish of Stenton, East Lothian. The mound, commonly known as the "Fairy Knowe," and situated in the "Roodwell Park," was removed in order that the soil might be utilised. Originally covered with whins and brushwood, it was not supposed that anything in the shape of a cairn would be found beneath,



Fig. 1. Urn from a Cairn at Stenton.

but the workmen had not proceeded far when they came upon a complete circle of large boulders, weighing from about 5 to 15 cwt. each.

The circumference of this circle measured about 40 yards, and clearly

defined the extent of the original cairn. After the removal of these boulders, and on approaching the centre from the east, the workmen next came upon a small square cist, containing the urn (fig. 1) in an inverted position, and covering some handfuls of calcined bones. The slabs enclosing it were very carefully arranged, the top slab being so placed as to rest gently on the bottom of the urn, without unduly pressing upon it. There was also found near the cist with the urn another stone cist, lying north and south, and measuring $4\frac{1}{2}$ feet by $2\frac{1}{2}$ feet, containing the flint knife and whetstone, as also a piece of skull. Both the cists were placed about 1 foot above the original surface of the ground. The whole mound previous to removal measured about 110 yards in circumference, and from 3 feet to 14 feet high at its centre. It will thus be seen that the original cairn had gradually increased in size owing to the accumulation of stones and rubbish from the surrounding fields.

The urn (fig. 1), which is $14\frac{1}{2}$ inches in height and $12\frac{1}{2}$ in diameter, is elegant in shape, and though not a new type, is a peculiar variety.

The flint knife (fig. 2), which is 3 inches in length, is one of the finest of its kind. The whetstone (fig. 3), which is 3 inches in length, is also a fine specimen, and interesting from the fact that the boring of the hole through one end is incomplete. It is made of micaceous schist.

The urn, which was much broken, has now been reconstructed, and by the kindness of Lady Mary C. Nisbet Hamilton has been presented, with its accompanying relics, to the Museum.



Fig. 2.
Flint Knife.

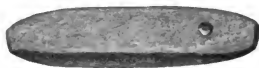


Fig. 3.
Whetstone.

VI.

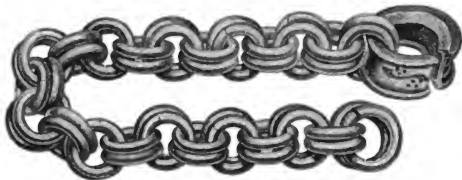
NOTES ON A GOLD LUNETTE FOUND AT AUCHENTAGGART, DUMFRIESSHIRE, AND A MASSIVE SILVER CHAIN FOUND AT WHITE-CLEUGH, LANARKSHIRE, EXHIBITED BY HIS GRACE THE DUKE OF BUCCLEUCH. By J. GILCHRIST CLARK, Esq., F.S.A. Scot. (Plate I.)

Gold Lunette.—The lunette now exhibited (and represented in the accompanying Plate I.) was found during the winter of 1872–73, on Auchentaggart farm, in the parish of Sanquhar, by John Wilson, then ploughman to Mr T. B. Stewart. He was ploughing stubble at the time, with three horses, a furrow rather deeper than usual, when the plough turned up what appeared to be a piece of thin metal folded together and rolled up almost like a ball. He took it home with him, and, after washing and unrolling it, found it to be a plate of yellowish metal, shaped, as he described it, “like a man’s collar.” In being unfolded, the metal gave way, as will be observed, at one point. It was then placed on the mantlepiece, where it remained along with the candlesticks and other articles usually found there. The ploughman removed a year or two afterwards from Auchentaggart to Eucharfort in the same parish, and took with him the pieces of old metal. In the beginning of 1878 he became unwell, and was attended by Dr J. J. Underwood, then practising at Sanquhar, who, while visiting his patient, observed the yellow metal “collar,” and thinking it a curiosity, though he did not know what, obtained it from the finder. As Dr Underwood was about to go abroad, it was obtained from him, through Mr J. R. Wilson, for the Duke of Buccleuch, on whose estate it had been found, and by whom it is now exhibited. It will be observed from the representation of the Lunette given in Plate I. that a portion of one of the rounded extremities is wanting, and that along the edge next the missing portion, nine holes are pierced. The purpose of these is suggested by one of the lunettes

already in the Museum, and the missing portion may perhaps be lying still where this was found. The weight is 4 oz. 1 dwt. 5 grs.

About two miles to the north-west of the place where the lunette was found there is a supposed Druidical circle on the hill of Knockenheir, and nearer, there is on Sanguhar Moor a small crannog or lake dwelling, while between these and Auchentaggart there is a ridge, on which there are a number of small tumuli, about the size of ordinary graves, which tradition makes the scene of a battle. But there are no apparent remains of antiquity where the lunette was found, and the manner in which it was folded up and rolled together suggests the idea that, when lost, it was being concealed. It may have been in the possession of its rightful owner, or it may have formed some one's share of a rich plunder, but in any case one cannot but think that on Auchentaggart Moor it was either concealed or cast away by some fugitive who was never able to return.

Silver Chain.—In May 1869, John Murray, shepherd at Shieldholm, in the parish of Crawfordjohn, Lanarkshire, while walking across a part



Silver Chain found at Parkhill.

of that farm, observed protruding from the side of a sheep drain which had been rather widened by the water, two or three objects which looked like rings. On touching them he found they were connected with something still in the earth, and then with a pull he brought away the whole of the chain now exhibited. It consists of forty-six rings attached to a

massive penannular link, and is almost precisely similar to the chain found at Parkhill, Aberdeenshire, now in the Museum, which is here figured. The chain had been lying about 18 inches below the surface of the ground, resting on the stiff clayey subsoil. When found the rings were all entire, but two have been since broken by persons attempting to open them. The weight of the whole is 62 oz. 12 dwt. and the silver of which it is made is not quite pure. It will be observed that the incised ornament on the penannular link is almost identical with that on the Norrie's Law plate



Terminal Link of Silver Chain found at Crawfordjohn.

or scale now in the Museum. The chain was obtained from John Murray by the Duke of Buccleuch, on whose estate it had been found, and is now by direction of His Grace exhibited to the Society.

The situation and position in which it was found, seem to suggest that it was there by accident. The spot is about 135 yards north of the march with Dumfriesshire, and a mile and a half, measuring along that march, west of Crawick Water. It lies in the middle of a tract of rough hill pasture, and there is nothing very near it to indicate earthworks or any other traces of ancient occupation. There is, however, a tradition that in former days there existed a road which led from Nithsdale by the glen of the Crawick, across this moor to Douglas, and standing on the spot where the chain was found, one can see, at the distance of about a mile to the north, the green turf that marks the site of an old camp, called on the Ordnance Map "Roman Camp," and close to the house at Shieldholm, which may possibly have been intended to command that road. If this were so, fights on the line of road would be frequent enough, and in one of such fights the chain and its owner may have been parted.

MONDAY, 12th April 1880.

REV. THOMAS MACLAUCHLAN, LL.D., Vice-President, in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows of the Society :—

JOHN H. BAXTER, Esq. of Gilston, Largo.

GEORGE H. B. HAY, Esq., Hayfield, Lerwick.

JOHN KIRSOP, Esq., 6 Queen's Crescent, Glasgow.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors:—

(1.) By the TRUSTEES of the late DAVID LAING, LL.D., F.S.A. Scot.

Gordon of Rothiemay's View of Edinburgh. An impression of the Original Engraving, by De Witt.

(2.) By THOMAS CHAPMAN, Jun., Esq. F.S.A. Scot.

A set of "Napier's Bones" in Parchment Case. These are small quadrangular rods, measuring $3\frac{1}{4}$ inches in length and $\frac{1}{4}$ inch of a side, which were formerly used for arithmetical calculations, and are said to have been invented by John Napier of Merchiston. The use of these mechanical aids to save the labour of calculation was superseded by Napier's subsequent invention of logarithms, and the "Bones," as they were called, are now only curiosities of a past age.

(3.) By WILLIAM FORBES, Esq., *Foreign Secretary*.

Cross, of Wrought Iron, $7\frac{3}{4}$ inches in length, having an equal-armed cross 3 inches in length on the top of the shaft, which is also 3 inches in length, and at the other end of the shaft a flat expansion an inch and a half square, surrounded with an engraved border, and bearing the five punctures

corresponding to the five crosses or "five wounds" usually imprinted on altar slabs. This cross is precisely similar in form and nearly similar in size to one already in the Museum from Abyssinia. It is said to be an ecclesiastical implement used in the administration of the Eucharist.

(4.) By ROBERT CARPRAE, Esq., F.S.A. Scot.

Flat Powder-horn, 13 inches in length, $4\frac{1}{2}$ inches in width, the open end mounted with lead, and one of the flat sides richly engraved with geometrical patterns in panels within a border of interlaced work.

(5.) By Mr ROBERT GELLATLY, Lochee, through Allan Mathewson, Esq., Corr. Mem. S.A. Scot.

Old Leister or Eel Spear of iron, three-pronged, $10\frac{1}{2}$ inches in length, found near Lochee.

(6.) By ALLAN MATHEWSON, Esq., Corr. Mem. S.A. Scot., Dundee.

Collection of implements of flint, and articles of brass and iron, including flint scrapers, rude and imperfect arrow-heads, and a great variety of articles in brass, such as portions of thin sheet brass scarcely thicker than paper, rivets or fasteners of the same, nails made of sheet brass conically rolled together, bits of brooches and brooch tongues, buckles and buckle tongues, pins, needles, &c., along with iron articles, chiefly fish-hooks, and fragments of pottery and pieces of the crucibles in which the metal has been melted, all as described in Mr Mathewson's "Notes on the Age of the Settlements on the Sands of Culbin," printed in the Proceedings, vol. xii. p. 502.

(7.) By ALEXANDER CRAWFORD LAMB, Esq., F.S.A. Scot., Dundee.

The Dundee Register of Merchants and Trades, with all the Public Offices, &c., for 1783. Reprint, privately printed in fac-simile from the only copy known, in Mr Lamb's possession.

(8.) By JOHN STURROCK, Esq., F.S.A. Scot., Dundee.

Pair of large Fetterlocks or Bilboa Irons, consisting of a bar of iron 2 inches thick and 18 inches long, with sliding loops or fetters.

(9.) By ANDREW KERR, Esq., F.S.A. Scot.

Candlestick Tinder-box of tinned iron, and three Flints and Steels.
Two Pocket Tinder-boxes with their Steels.

(10.) By Mr WILLIAM KINNEN.

Candlestick Tinder-box of tinned iron, and Steel.

(11.) By JOHN HENRY PARKER, C.B., Hon. Mem. S.A. Scot., the Author.

The Primitive Fortifications of Rome. 8vo. 1878.

The Archæology of Rome—The Colosseum. 8vo. 1876.

The Archæology of Rome—The Aqueducts. 8vo. 1876.

Forum Romanum et Magnum. 8vo. 1879.

The Twelve Egyptian Obelisks at Rome. 8vo. 1879.

Plan of Ancient Rome. 8vo. 1879.

The Tombs in and near Rome. 8vo. 1878.

Church and Altar Decorations in Rome. 8vo. 1878.

The Catacombs in Rome. 8vo. 1877.

(12.) By FRANCIS ABBOTT, Esq., F.S.A. Scot.

Orchesography, or the Art of Dancing, with the figures. By John Weaver. London. 4to. 1706.

Dactylitheca Smithiana. 2 vols. folio. Venice. 1767.

(13.) By J. H. RIVETT CARNAC, Esq., F.S.A. Scot., the Author.

Archæological Notes on Ancient Sculpturings on Rocks in Kumaon, India. 8vo. Pp. 38. Illustrated.

Prehistoric Remains in Central India. 8vo. Pp. 16. Illustrated.

Rough Notes on the Snake Symbol in India. 8vo. Pp. 14. Illustrated.

Descriptions of Stone Carvings, collected in a tour through the Doab, from Cawnpore to Manipuri. 8vo. Pp. 4. Illustrated.

There were also exhibited :—

(1.) By JOHN STURROCK, Esq., F.S.A. Scot.

Jet Necklace and Urn, found in a Cist at Balcaik, Tealing, Forfarshire.

Polished Celt of Flint, found at Newton-Afleck, Monikie, Forfarshire.

Small Flint Celt from the same locality.

Chisel-shaped Celt of Flint from Forfarshire.

Oval-shaped Knife of Flint, polished, from Fordoun Kincardineshire.

Finely formed Arrow-head of Flint, of large size, from Wardneuk, Carmyllie, Forfarshire, and two Arrow-heads from Fordoun and Ellon.

[See the subsequent communication by Mr Sturrock.]

(2.) By JAMES CRUIKSHANK ROGER, Esq., F.S.A. Scot.

Drawing by the late Mr Charles Roger of Dundee, showing both sides of a Crescent-shaped Bronze Plate dug up at Laws, Monifieth, in 1796, bearing two of the Symbols of the Sculptured Stones, and the remains of an Inscription in Runes.

[See the subsequent communication by Mr Roger.]

(3.) By JOHN KIRSOR, Esq., Glasgow.

Two Carved Wooden Implements from South Australia. They are flat, oblong pieces of hard wood shaped like the boomerang, but not curved ; one is 15 inches in length and $2\frac{1}{2}$ in width, the other 10 inches in length and $1\frac{1}{2}$ in width. Both are slightly twisted from the centre in opposite directions. They are ornamented with concentric circles and connecting bands rudely incised.

(4.) By FRANCIS MOFFAT, Esq., Craigbeck.

Three Leadén Vessels, found in a moss at Craigbeck, Moffat. These

vessels are of sheet lead, like stewpans, with flat bottoms and perpendicular sides. They have had loops of iron fastened to the rims apparently for the purpose of attaching loop handles. They are of different sizes, the largest being about 14 inches diameter and 7 inches deep and the smallest 10 inches diameter and 5 inches deep. Their use is unknown.

The following Communications were read :—

I.

NOTES ON FIRE-PRODUCING MACHINES. BY J. ROMILLY ALLEN,
F.S.A. Scot.

It is intended in the following paper to describe and classify the machines used by man, at various periods of his history, for producing fire.

Classification of Fire-machines.—The methods of kindling fire afresh, as at present known, may be divided into four classes, namely, (1) Mechanical ; (2) Optical ; (3) Chemical ; (4) Electrical.

The mechanical methods may again be subdivided into (a) Frictional, (b) Percussive, (c) Compressive.

Process of Fire-kindling.—Whatever be the means employed, the process of fire-kindling is always a triple one, consisting of the following operations :—(1) Creating a spark of fire artificially ; (2) Catching the spark thus obtained in tinder ; (3) Setting fire to some easily inflammable substance with the smouldering tinder.

In the case of the lucifer match these three actions are combined into one ; and hence its superiority over the older and more lengthy methods.

Tinder.—As the use of tinder is involved in nearly all of the fire-kindling processes which follow it may be as well to say a few words on the subject before proceeding further. Tinder is any substance which on the application of a spark of fire smoulders, but does not burst out into flame.

Burnt linen rags were formerly used for the purpose in this country. The following substances, however, do equally well, viz., *Amadou* or German tinder. Touchpaper or porous paper which has been dipped in a solution of saltpetre, and afterwards dried. Touchwood or woody tissue in a certain stage of decay,—shreds of frayed wood,—fragments of pith, fibres of cotton, dry moss, &c.

Amongst the flora of the Swiss Lake-dwellings found at Robenhansen was the common tinder fungus (*Polyporus igniarius*).¹

The Iroquois Indians of North America use a species of fungus which grows on the maple, or when this cannot be obtained a fungus of inferior quality found on the birch.²

"The Australians obtain fire by rubbing two bits of wood. In damp weather great care is taken to prevent the fire going out; for this reason they often carry a cone of *Bankeia*, which burns slowly like *Amadou*."³

Mechanical Methods of producing Fire.—The mechanical methods for producing fire are based upon the fact that whenever motion is apparently destroyed by friction or otherwise, it is in reality simply transformed into heat or energy in another shape. This transformation of work into heat takes place when two substances are either rubbed or struck against each other, or when an elastic body such as air is suddenly compressed. Hence the division of the mechanical methods of producing fire into the three classes before mentioned, namely, (1) Frictional, (2) Percussive, (3) Compressive.

Frictional Methods.—The frictional method of producing fire consists in rubbing two substances together until sufficient heat is generated to cause a spark. The substance universally used for the purpose is dry soft wood such as deal or cedar.

The operation of rubbing two pieces of wood together for fire-making is performed in several different ways, either by a reciprocating up and down

¹ Flint Chips, p. 162.

² Wilson's "Prehistoric Man," vol. i. p. 132.

³ Lubbock's "Prehistoric Man," vol. i. p. 194.

movement or by a rotary motion. The various forms of apparatus used amongst savages will now be described.

Stick and Groove Machine.—One of the simplest fire machines involving an up and down movement is what Dr Tylor terms the “stick-and-groove.”¹ It consists of two parts, a long flat piece of wood and a blunt pointed stick. The former is placed on the ground and kept firm whilst the latter is held with both hands in a slanting position and rubbed violently backwards and forwards in a groove which it soon forms for itself in the lower piece, a downward pressure being kept up the whole time. The action is like that of a workman sharpening a chisel on a stone. The heat thus developed soon chars the lower wood and creates sparks, which are caught in tinder in the usual way. Dr Darwin says that the very light wood of the *Hibiscus tiliaceus* was alone used for this purpose in Tahiti. A native would produce fire with it in a few seconds; he himself found it very hard work, but at length succeeded. This stick and groove process has been repeatedly described in the South Sea Islands, namely in Tahiti, New Zealand, the Sandwich, Tonga, Samoa, and Radaack groups; but he had never found it distinctly mentioned out of this region of the world.²

Looked on from a purely mechanical point of view, the “stick and groove” is simply a reciprocating or up and down motion in a straight line, like that of a jack-plane or hand saw, and it does not appear that any improved form was introduced subsequently as in the case of the fire-machines involving a rotary movement.

It is said that fire can be produced by sawing one piece of wood across another. The Rev. Dr M'Lauchlan says that his father saw “tin-egin” or need-fire produced in this way in the Highlands of Scotland. A Low-German book of 1593 speaks of the “nodfure” that they sawed out of wood.³

Fire Drills.—Fire-machines worked by a rotary motion are called “fire-

¹ Tylor's “Early History of Mankind,” p. 237.

² *Ibid.*, p. 237; Darwin in Narr., vol. iii. p. 438.

³ Tylor's “Early History of Mankind,” p. 258.

drills," because corresponding to each variety is an identical apparatus used for boring holes. Whether the drill was first invented for making fire and afterwards applied to boring processes, or *vice versa*, can never be determined. However, the fire drill is probably one of the earliest machines in which rotary motion was employed, and its gradual improvement led up to the simpler forms of turning lathes, from which the modern lathe was finally developed.

Hand Twirling.—The simplest kind of fire drill is that which is rotated by means of simple hand twirling. The machine consists of two parts—a round blunt pointed twirling stick eight or nine inches long, and a flat piece of wood.

The latter is placed on the ground and held firm with the feet or knees. The twirling stick is then held upright between the palms of the hands, with its blunt lower end resting in a slight hollow in the flat piece of wood beneath. A rapid rotary motion backwards and forwards is then imparted to the twirling stick with the palms, often shifting the hands up and then moving them down upon it so as to increase the vertical pressure, as much as possible. If the wood is dry sparks can be produced by one man working alone in a couple of minutes; but if the wood is either damp or otherwise difficult to kindle two men are required to work together, one beginning to twirl at the upper end of the stick, when his companions have nearly reached the bottom, and so on until fire comes. The process of hand twirling for producing fire is the most widely spread of all the known methods, and is found in every quarter of the globe. Captain Cook thus describes the use of the fire drill amongst the natives in Australia: "They produce fire with great facility and spread it in a wonderful manner. To produce it they take two pieces of dry soft wood: one is a stick about 8 or 9 inches long, the other piece is flat: the stick they shape into an obtuse point at one end, and pressing it upon the other, turn it nimbly by holding it between both their hands, as we do a chocolate mill, often shifting their hands up, and then moving them down upon it, to increase the pressure as much as possible. By this method

they get fire in less than two minutes, and from the smallest spark they increase it with great speed and dexterity."¹

Mr Paul Kane thus describes the process employed by the Chinooks on the Columbia River: "The fire is obtained by means of a flat piece of dry cedar, in which a hollow is cut with a channel for the ignited charcoal to run over. This piece the Indian sits on to hold it steady, while he rapidly twirls round a stick of the same wood between his hands, with the point pressed into the hollow of the flat piece. In a very short time sparks begin to fall through the channel upon finely-frayed cedar bark, placed underneath, which they soon ignite. There is a great deal of knack in doing this, but those who are used to it will light a fire in a very short time. The men usually carry these sticks about with them, as after they have been once used they produce the fire more quickly."²

The method of procuring fire among the Dacotahs or Sioux is thus described by Philander Prescott, an Indian interpreter:—"A piece of wood was squared or flattened so as to make it lie steadily, a small hole was commenced with the point of a stone, then another small stick was made round and tapering at one end. This end being placed in the hole, the Indian put one hand on each side of the round stick and commenced turning it as fast as possible, back and forward. Another held the wood with one hand, and a piece of punk with the other, so that when there was the least sign of fire, he was ready to touch the punk, and put it when ignited into a bunch of dry grass that had been rubbed fine in the hands,"³

The following is an extract from "Nature," vol. xxi. p. 423, Mar. 4, 1880:—

"The savage process of producing fire by the friction of wood, so often described in books of travel, but seldom seen in this country, was performed by Farini's Zulus, at the Westminster Aquarium on Monday, in the presence of

¹ Cook's "First Voyage H.," vol. iii. p. 234, quoted in Tylor's "Early History of Mankind," p. 238.

² "Wanderings of an Artist among the Indians of North America," p. 188, quoted in Wilson's "Prehistoric Man," vol. i. p. 131.

³ Quoted in Wilson's "Prehistoric Man," vol. i. p. 132.

Dr Tylor, Gen. Lane-Fox, Mr Francis Galton, Col. Goodwin Austen, and other members of the Anthropological Institute. Some straw being laid on the ground as a bed, two sticks were placed on it a few inches apart to form a support for the third stick, which was laid across them, having a deep notch cut in it to receive the blunt point of the drilling stick; this was twirled like a chocolate miller between the palms of the hands, and when the twirler's hands reached the bottom they were either dextrously shifted to the top again, or another of the Africans squatting round took on and relieved the first. A spark was got in the charred dust in about five minutes, and was received with shouts and leaps of delight by the fire-makers, one of whom, carefully shielding it in a handful of straw, soon fanned it into a flame. These natives are physically fine specimens of the Kafir type."



Fig. 1. Mexican representation of hand Fire Drill.

Several quaint illustrations of the use of the hand fire drill in Mexico will be found in Lord Kingsborough's magnificent reproductions of ancient Mexican picture-writing; one of them is shown on the annexed cut (fig. 1).¹

¹ The Sanskrit name for the spindle of fire drill is "pramantha," and Prometheus, whose name was derived from it, is probably nothing more than its personification. The tube (*νᾰρπηξ*, *ferule*) with which fire was stolen from heaven, also suggests the shape of the fire stick.

Although the plan of hand twirling is such a clumsy one, it has been found in use both in South America and Madagascar for boring holes, as well as for fire making.¹

The chief disadvantage of the hand-twirled drill is that the means of creating a downward pressure is very inefficient. This is got rid of in the improved form of fire-machine known as the cord drill.

Cord Drill.—In the cord drill the rotary motion is given by means of a cord or thong twisted once or twice round the twirling stick and pulled rapidly backwards by the hands holding both ends. The necessary downward pressure is obtained by sharpening the upper end of the twirling stick and placing over it another piece of wood, like the bottom one, held down by a second worker. The cord drill thus consists of four parts—the upper wood, the lower wood, the spindle, and the cord.

Dr Tylor quotes the following description of the use of the cord drill in India for kindling the sacrificial fire, from Stevenson's "Sama Veda," p. 7:²—

"The process by which fire is obtained from wood is called churning, as it resembles that by which butter in India is separated from milk. . . . It consists in drilling one piece of arani-wood into another by pulling a string tied to it with a jerk with the one hand, while the other is slackened, and so on alternately till the wood takes fire. The fire is received on cotton or flax held in the hand of an assistant Brahman." The lower wood is called in Sanscrit the "arani" and the spindle the "pramantha" or "câtra," and the sacred fire "Agni" (Lat. *ignis*). Both Kühn in his "Herabkunft des Feuers," and Emile Burnouf in his "Science des Religions" (p. 256), maintain that the well-known Swastika symbol represents the two pieces of wood composing the "arani," the ends being curved in order to be held firm by four nails.

The Indian churn referred to above consists of an upright bamboo spindle, worked with a cord, on each side of which are two forked pieces of wood tied fast to a tree so as to form bearings (see fig. 2). The bottom of the bamboo is split into four, and inserted in a jar containing the milk, thus forming a kind of whisk.

¹ Tylor's "Early History of Mankind," p. 241.

² *Ibid.*, p. 255.

The Esquimaux of Greenland were found by Davis in 1586 using a cord drill for producing fire. The upper wood of this apparatus was furnished with a handle at each end, so that the spindle could thus be kept steady and the necessary downward pressure exerted on the lower wood by one

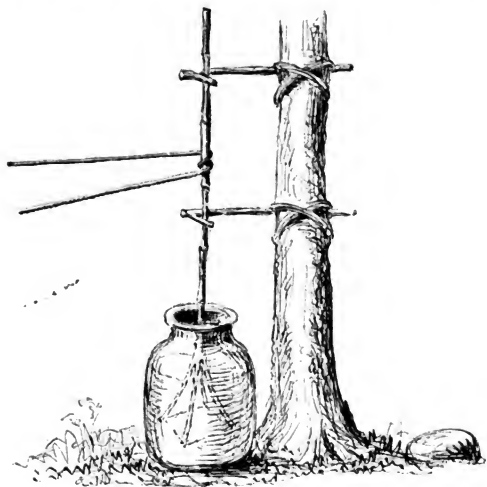


Fig. 2. Method of Churning in India.

worker whilst a second pulled violently at each end of the cord until fire came. The end of the spindle was lubricated with train oil.¹ (The Indians use butter for this purpose. See Kühn, p. 78.)

The use of the cord drill for producing fire has survived in the supersti-

¹ Tylor, p. 242; quoted from Hakluyt, vol. iii. p. 104.

tious rites of "needfire" in Germany certainly as late as the 17th century.¹ An unsuccessful attempt was made when the present paper was read to illustrate practically the process of fire making with the cord drill. The experiment was, however, again repeated by Mr Anderson and Mr Stevenson at the Museum in the presence of Dr Mitchell and myself, and succeeded perfectly. The following particulars may be interesting :—A piece of flat open-grained dry deal, 9 inches by $4\frac{1}{2}$ inches by 1 inch, was clamped down, to a table so as to be perfectly steady. A very shallow depression was then formed with a penknife to hold the end of the drilling stick, and a piece of touchpaper, frayed at the edge, was fastened down with a drawing pin close to it to catch the spark. The drilling stick was 9 inches long, round in section, $\frac{7}{8}$ ths of an inch diameter at the lower end, and tapering slightly towards the top. The point of the lower end of drilling stick was *very blunt*, resembling in outline a flat Tudor arch, and the upper point sharp. The drilling stick was placed upright, with its lower end resting in the depression of the flat piece of wood, and its upper end rotating in a conical hole made in a round stone just large enough to hold in the hand conveniently. One person kept the drill in this position while a second worked the cord backwards and forwards as before described. The cord was 6 feet long and $\frac{3}{16}$ ths thick, twisted two or three times round the spindle, and wetted so as to make it bite. A spark which lighted the touchpaper was thus produced in a quarter of a minute (timed by watch). The sparks were generated round the edge of the hole where the air had free access. Both stick and hole presented a charred appearance as if touched with a red hot poker. The point of the drilling stick must be blunt and wear a hole for itself. The depth of the hole when fire came was barely $\frac{1}{8}$ th of an inch, and it seems to be much easier to get fire in a shallow hole than a deep one. The cord drill has been known in Europe since a very remote period. Homer describes Olyseus as boring out the eye of the Cyclops with a machine of this kind.²

¹ Tylor, p. 257 ; Grimm's D. M., p. 570 ; Jamieson's "Scottish Dictionary," articles "Neidfire" and "Black Spaul."

² Homer's "Odyssey," ix. 382.

In India and Central Asia the principle of the cord drill is applied to the turning-lathe. It consists simply of two pieces of wood driven into the ground so as to act as bearings for the wood to be turned, which is

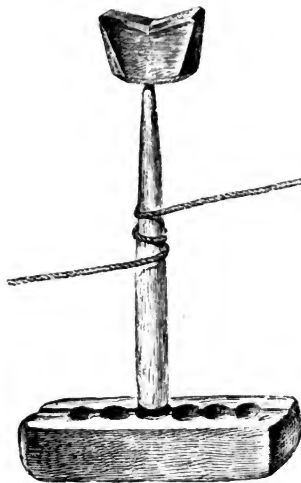


Fig. 3. Esquimaux Cord Drill and Mouthpiece.

worked alternately backwards and forwards by means of a cord twisted round it.¹ The Indian name for the cord lathe is "kharad." Sailors in England dry their mops by a similar device.

¹ Reuleaux, "Kinematics of Machinery" (Kennedy), p. 211; Holtzapffel's "Turning," vol. iv. p. 6.

Although the cord drill is a great improvement on mere hand twirling, it requires two men to work it, whereas when the wood is dry the latter only takes one.

The next step in the development of the fire machine is the getting rid of the second operator, whilst retaining the advantages of the cord drill. There are three different ways of doing this which will now be described.

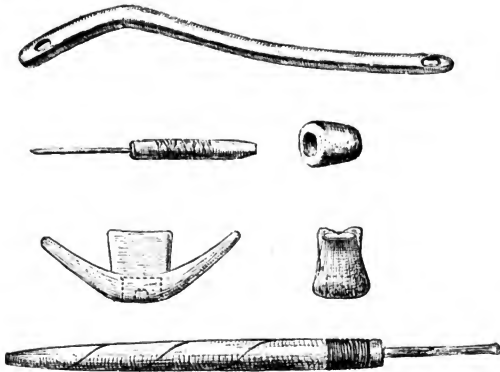


Fig. 4. Esquimaux Cord Drill Apparatus and Egyptian Bow Drill.

Cord Drill and Mouthpiece.—The cord drill and mouthpiece is the same as the simple cord drill (fig. 3), except that the upper wood is made of smaller dimensions and held between the teeth, thus leaving the two hands free to work the cord. This machine has been found in use in the Aleutian Islands both for boring holes and making fire. There is a set of the Esquimaux apparatus of this kind in the Edinburgh Industrial Museum, an illustration of which is here given (see fig. 4). Sir E. Belcher thus

describes the use of the cord drill and mouthpiece for boring by means of a point of green jade :—"The thong . . . being passed twice round the drill, the upper end is steadied by a mouthpiece of wood, having a piece of the same stone imbedded, with a countersunk cavity. This held firmly between the teeth directs the tool. Any workman would be astonished at the performance of this tool on ivory ; but having once tried it myself, I have found the jar or vibration on the jaws, head, and brain quite enough to prevent my repeating it."¹

The Bow Drill.—The next way of dispensing with the second worker is by the well-known bow drill. It will be observed that in working the cord drill with outstretched arms² both ends of the cord are moving in the same direction at the same time. If, therefore, the near end is connected with the far end by means of a rigid bar, the cord can be worked backwards and forwards by one hand instead of two. The bow fulfils this purpose, and at the same time by its spring keeps the cord "taut." The bow drill consists of four parts—the upper and lower wood, the spindle and the bow. The method of working is as follows :—The cord of the bow is given a twist once or twice round the spindle, which is then placed vertically between the upper and lower wood. The upper wood is held with one hand, pressing the spindle hard against the lower wood, whilst the required rotary motion is given by means of the bow worked backwards and forwards with the other hand.

The bow drill is used for fire making by the Sioux Indians, and Dr Tylor gives an engraving copied from "Schoolcraft" (part 3, pl. xxviii.) of the apparatus employed by them for the purpose.³ Dr Daniel Wilson says that the Naskapee Indians of Canada are acquainted with the bow drill for fire making.⁴

There are some quaintly-carved Esquimaux bows of walrus tusk in the

¹ Tylor, p. 243 ; quoted from Sir E. Belcher, in "Trans. Eth. Soc.," 1861, p. 140.

² The cord drill can be worked in two ways, either by "pulling the cord towards the body and then away from it, or right and left with outstretched arms."

³ Tylor, p. 244.

⁴ D. Wilson's "Prehistoric Man," vol. ii. p. 375.

British Museum (see Photos, No. 88) which are labelled as fire drills. Mr G. Goudie, F.S.A. Scot., has in his possession one of these curious bows. It is a foot long and half an inch square in section in the middle, tapering to the ends. It is perfectly rigid, and the tightening of the thong is effected by the ingenious way in which it is passed through double holes at each end. All four sides are carved, and represent hunting scenes, &c.



Fig. 5. Esquimaux Bow Drill.

The extraordinary resemblance between this type of Esquimaux art and that of the Palæolithic man who inhabited the caves of France has been pointed out by Sir J. Lubbock and Prof. Boyd Dawkins, in whose works engravings of some of these elaborately ornamented bows will be found.¹ There is a specimen of an Esquimaux bow drill from Fort Ander-

¹ Boyd Dawkins' "Early Man in Britain," p. 239.

son in the Edinburgh Industrial Museum (fig. 5). The bow is of bone but has a spring in it, and the spindle is of wood with a steel drill point. The upper wood is of very peculiar shape, consisting of a square block to be grasped between the finger and thumb, and having two projecting wings curving upwards on each side, like a crescent. A small stone socket is let into this piece of wood to receive the top of the drill. The bow drill has been known in Egypt from the earliest times for boring. Representations of its use occur on the walls of tombs at Thebes, and specimens found there are now in the British Museum (date 1450 B.C.).¹ The hollow socket for the top of the drill (corresponding to the upper wood in the fire drill) was made out of the nut of the Theban palm (*Crucifera thebaica*), "and being found peculiarly adapted for the purpose, from its great durability, it still continues to be used by carpenters and cabinetmakers in Egypt." The bow is of wood, and rigid: it has a rectangular hole at each end for fastening the strap. The tightening is effected by pulling the strap through the hole nearest the hand and twisting it round the crooked part of the bow which acts as a handle. The modern Egyptian bow, which is also rigid, has a "hinged piece near the handle, employed to regulate the tension of the string; the string is wrapped once or twice round the spindle, after which it is twisted round the jointed piece, which is then folded back and held in the hand with the handle."² The bow drill is still in use in England; the bow is a thin flat piece of steel fixed in a handle, and the tightening is managed by a pin and ratchet wheel, as in some stringed musical instruments. The drill spindle is of steel with a wooden reel upon it round which the catgut cord is twisted. The drill is worked horizontally against a breastplate, fixed on the chest. The turning lathe found all over the East is worked with a bow, and its use still survives in the watchmakers' "turn bench" in England.

The Pump Drill.—The New Zealanders use a cord drill for boring holes through hard greenstone, &c., in which the spindle itself is weighted. It

¹ Sir G. Wilkinson's "Egypt," vol. i. p. 400; Rossellini's "Egypt," vol. ii. pls. 44 and 52 given in Holtzapffel's "Turning," vol. iv. p. 3; Brit. Mus. Photos., No. 305.

² Holtzapffel's "Turning," vol. iv. p. 9.

is described as "a sharp wooden stick, 10 inches long, to the centre of which two stones are attached, so as to exert pressure and perform the office of fly-wheel. The requisite rotary motion is given the stick by two strings pulled alternately."¹ Perhaps the idea of weighting the spindle,

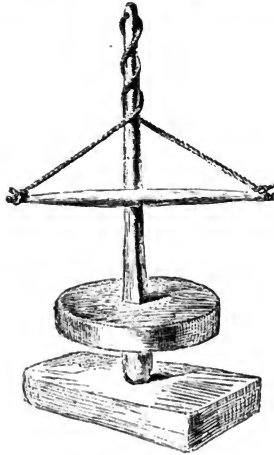


Fig. 6. Pump Drill.

together with the knowledge of the bow, may have led up to the invention of the "pump drill," which will now be described.

This instrument derives its name from the fact of its being worked up and down like a pump.

It consists of an upright wooden spindle, near the bottom of which a

¹ Tylor, p. 243 ; quoted from Thomson's "New Zealand," vol. i. p. 203.

heavy fly-wheel is mounted, and a horizontal cross piece, whose two ends are connected with the top of the spindle by a cord passing through a hole or notch in it (see fig. 6). The method of working the drill is as follows :—The spindle is placed vertical and twisted with one hand, thus winding the cord round it and raising the cross piece which is held with the other hand. The cross piece is then brought down suddenly, unwinding the cord and thus driving the spindle round. Whilst the cross-piece is being lifted the fly-wheel runs on and rewinds the cord in the opposite direction, so that the operation can be again repeated and kept up indefinitely.

The pump drill is described by L. H. Morgan as being used by the Iroquois Indians of North America for producing fire,¹ and is stated to be an Indian invention of great antiquity. An engraving of the machine is given in Tylor. The spindle is described as being 4 feet long and 1 inch diameter, and the cross piece a bow 3 feet long. The pump drill is used in Europe, China, and the South Sea Islands for boring holes. There is a specimen of a pump drill from Bowditch Island in the Hunterian Museum at Glasgow presented by Turner.² The point is of stone, and the fly-wheel a round disc of wood; the cross piece hangs loose by the side of the spindle. Tylor gives an engraving of a Swiss drill differing from the former only in having a steel point, and in the spindle passing through a hole in the centre of the cross piece. The pump drill used in England is the same as the last, except that it has a metal bulb for a fly-wheel. It is used chiefly by china and glass menders on account of "the lightness and evenness of its pressure lessening the danger of cracking these brittle materials." A sketch of a Chinaman using the pump drill is given in Holtzapffel's *Turning*.³ The fly-wheel is placed on the top of the spindle instead of near the bottom, and the cross-piece hangs loose.

Centre-bit Drill.—The centre-bit drill is so well known amongst joiners of the present day that it hardly needs to be described more than to point out that it is simply the principle of the crank applied to drilling. This instrument has been found in its most primitive form by Dr Darwin in use

¹ Tylor, p. 246; quoted from the "League of the Iroquois," p. 381.

² Tylor, p. 245.

³ Vol. iv. p. 4.

amongst the Gauchos of the Pampas of South America ; but, as Dr Tylor remarks, the Gauchos are not savages, but half-breeds, and this machine may have been suggested by the European tool it so closely resembles.

Dr Darwin describes its use as follows :—"Taking an elastic stick, about 18 inches long, he presses one end on his breast, and the other (which is pointed) in a hole in a piece of wood, and then rapidly turns the curved part like a carpenter's centre-bit."¹

It will be noticed that this is the only form of fire drill in which the motion is continuous, as in all the others the movement is backwards and forwards. It also involves a standing attitude if used as described by Darwin, which is rather against its being employed except by Europeans.

Development of the Fire-drill.—Having concluded the description of most of the known ways of producing fire by means of friction, it may be worth while to consider briefly what part the fire drill has played in the general development of machinery. It should be noticed that the completeness of a machine depends on the relative parts played by human action and by the machine itself, and that machine is most perfect which involves least skill on the part of the operator. As an instance of this the cord drill requires far less skill to work it than hand twirling does, and the former is, therefore, the more highly developed machine of the two. In studying the different kinds of fire drills, it is possible to trace the gradual improvement in the means of obtaining rotary motion beginning with simple hand twirling, then the cord drill, and lastly the bow drill. It has been shown that all these methods have been applied to boring holes as well as fire raising, and that the last two are used in the turning lathe found all over the East. The Chinese employ a form of cord lathe in which the two ends of the cord are attached to treadles worked up and down alternately by the feet.² The earliest known European machine for turning is the pole lathe. This is a further development of the cord principle, adapted probably (as Holtzapffel points out) to the erect attitude universally chosen by the European mechanic in preference to a sitting one

¹ Tylor, p. 241 ; Darwin in Narr., vol. iii. p. 488.

² Holtzapffel's "Turning," vol. iv. p. 16.

while at work. In the pole lathe the rotary motion is obtained by means of a vertical cord attached to a treadle at the bottom, then passing once or twice round the piece of wood to be turned, and fastened at the top to the end of a springy lathe or pole, stuck out horizontally at right angles to the wall. When the treadle is depressed it pulls the cord down, causes the wood to revolve, and bends the pole down at the same time; on removing the pressure of the foot from the treadle, the spring of the pole pulls it up again, so that a fresh turn can be applied to the wood by its means. The pole lathe is still used in England for turning wooden bowls and flutes with projections for keys. It is also found in Japan, Italy and elsewhere. During the 18th century the pole lathe was gradually superseded by improved machines in which the rotary motion was continuous, and in one direction instead of backwards and forwards. This was effected by discharging the pole and substituting for it a fly-wheel and driving band. The fly-wheel was detached and placed either above at one side or below the lathe, and worked in some cases by hand and in others by a crank and treadle. The driving band was crossed and required a tightening apparatus. In the modern lathe the fly-wheel and crank form part of the machine instead of being detached; the form of treadle and crank has been improved, and the tightening apparatus for the driving band dispensed with. The crank and treadle are separate inventions by themselves, and were used in the spinning wheel long before they were applied to the lathe, but the origin of the driving band may fairly be traced back through its successive phases of development to the cord drill.

Mechanical Methods—Percussion.—In the frictional methods of producing fire, the material used is generally soft wood, and the operation is more or less lengthy, whereas in the percussive methods the substances employed are usually of a hard flinty nature, and the process almost instantaneous. In all the percussive methods two pieces of the substance are required, and these are held one in each hand and struck together violently so as to cause sparks to fly, which are caught in tinder.

Split Bamboo.—In Eastern Asia and in the Malay Islands of Sumatra and Borneo, fire is got by striking together two pieces of split bamboo.

This is rendered possible by the hard silicious coating of the cane. It would seem, however, that there is some disadvantage in the process (perhaps the liability to cut the fingers), as it has not superseded the fire drill in the localities where it is known. Sometimes the process is varied by rubbing one piece of bamboo with a sharp edge against another.¹

Fire Stones.—The method of striking fire by means of two stones is of great antiquity. The substances possessing this property are called fire-stones, and silica (in the form of flint, quartz, or agate) and iron pyrites are the most universally used. The Greek word *πυρίτης* means fire stone, and the term was applied to flint as well as to the mineral now known by that name. The natives of Terra del Fuego (Land of Fire) procure fire by striking together flint and iron pyrites.² The same method is also employed by the Slave and Dog Rib Indians of North America, by the Esquimaux, and by the Algonquin Indians. "The Alashkans are reported to obtain fire by striking together two pieces of quartz rubbed with sulphur over some dry grass or moss, strewed with feathers, where the sulphur falls."³

The Palaeolithic cave men were probably acquainted with the use of fire stones. Iron pyrites and hæmatite strike-a-lights were found in the cave of Les Eyzies, valley of the Vézère, Périgord (see Lartet and Christy's "Reliquiæ Aquitanicæ," p. 248). M. Dupont also found iron pyrites in the Trou de Chaleux in Belgium.⁴ Mr Worthington G. Smith tells me he has found traces of fire in the shape of masses of burnt wood and burnt stones in the Palaeolithic sands and gravels near London, but no iron pyrites. He has also found strike-a-lights of flint and iron pyrites at Maiden Bower Camp, Bedfordshire, and of quartzite at Warren Hill, Norfolk. Professor Boyd Dawkins illustrates a flint and iron pyrites strike-a-light of the Bronze Age found together at Seven Barrows, Lambourne, Berks.⁵ Dr Evans

¹ Tylor, p. 238; quoting Bowring, vol. i. p. 206; St John, vol. i. p. 137; Marsden, p. 60; Tennent, "Ceylon," vol. i. p. 105.

² Tylor, p. 247; Wilson's "Prehistoric Man," vol. i. p. 134; quoting Weddell's "Voyage towards the South Pole in 1822," p. 167; Wallis, 1767, Sarmiento de Gamboa, 1580.

³ Tylor, p. 248.

⁴ Boyd Dawkins' "Early Man in Britain," p. 210.

⁵ *Ibid.*, p. 358.

observes that the statement of Pliny that fire was struck out of flint by Pyrodes, the son of Cilix, is a myth which points to the use of silex and pyrites rather than of steel.¹

Flint and Steel.—In most countries where iron is known, the flint and steel process had superseded all others, before the introduction of lucifer matches. The flint and steel apparatus as used in this country at the beginning of the present century consisted of a piece of steel about $\frac{1}{4}$ of an inch thick and $\frac{1}{2}$ an inch wide and 3 inches long, bent round into the form of a hook or sometimes a ring, so as to be held conveniently between the first two fingers and thumb, a small bit of flint called a "strike-a-light" and a tinder-box.

Strike-a-lights.—The chief seat of the strike-a-light manufacture is at Brandon in Suffolk, where they still continue to be made in small quantities for exportation. Brandon was in prehistoric times one of the principal places where flint implements were made, and was, in fact, the Sheffield of the Stone Age. After the introduction of bronze and iron, the trade dwindled down into the making of strike-a-lights only, until gunpowder was invented, and the trade again revived owing to the demand for gun-flints. The earliest gun-flints were merely small strike-a-lights, and the form of the strike-a-light was in its turn derived from that of the scraper of the Stone Age. The strike-a-lights used before the introduction of metal are identical with those made at Brandon even at the present day.²

Tinder-box.—The tinder-box commonly used in this country fifty years ago, and even surviving in remote districts up to the present day, consists of a round tin box, 4 inches in diameter and $1\frac{1}{2}$ inch deep, with a movable lid. In the inside is a close-fitting cover, convex in the middle, and with a handle for lifting it, the use of which is to put out the tinder when done with by excluding the air. In some cases the lid of the box forms a candlestick. The operation of producing fire with the flint and steel consists in striking the steel (figs. 7 and 8) briskly against the flint, thus causing sparks to fly, which are caught in the tinder. When the

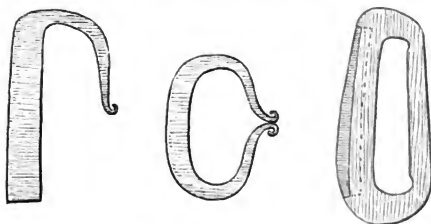
¹ Evan's "Stone Implements," p. 14.

² Dr Ure's "Dictionary," ed. 1878, Suppl., p. 375.

spark falls on the tinder it begins to smoulder, and a flame is obtained from it by means of a brimstone-tipped deal match, sometimes called a "spunk."

There is an Esquimaux steel (fig. 9) in the Edinburgh Industrial Museum, set in a bone handle, perhaps to avoid cold. The steel itself appears to be a bit of an old flat file.

A form of flint and steel apparatus is in use amongst smokers at the present day. The tinder is made into a small rope about $\frac{1}{4}$ of an inch diameter, and passes through a metal tube 3 inches long, out of which it is drawn by means of a small hook attached to a chain. The other end of the chain is fastened to a little plug fitting into the end of the tube, and



Figs. 7, 8, 9.

serving the same purpose as the inner cover of the tinder-box. On the top of the tube is fixed a flat bit of steel, and a bit of agate, 1 inch square and $\frac{1}{4}$ inch thick, is hung at the end of another chain. The bit of agate is struck against the steel, and ignites the tinder rope immediately beneath it. This apparatus is used by smokers because the wind does not blow out the tinder.

Mechanical Methods—Compression.—The last of the mechanical methods of producing fire to be described is that in which the required heat is generated by compressing air. The apparatus consists of a brass tube, $3\frac{1}{2}$ inches long and $\frac{3}{8}$ ths of an inch diameter, closed at one end, and fitted with

a piston packed in the usual way. On the top of the piston rod, and on the bottom of the tube, are two flat boxwood knobs, 1 inch in diameter. A small bit of German tinder is placed in a hollow at the end of the piston, and it is then forced down sharply to the bottom of the tube by aid of the flat knobs. The sudden compression of the air creates sufficient heat to set the tinder on fire. Dr Tylor says that an instrument on this principle, made in hard wood, ivory, &c., is used as a practical means of making fire in Burmah and also among the Malays.¹

Optical Methods—The Burning Mirror.—There are two optical methods of producing fire by means of the heat of the sun's rays, which are concentrated or brought to a focus either by reflection or refraction. Firstly, there is the burning mirror.

The surface of the burning mirror must be concave and of a highly polished material which will reflect rays of heat. The best form is a paraboloid, but a flat spherical one which gives a good caustic will answer almost as well. In order to obtain fire with the burning mirror, it must be placed facing the sun and the tinder in the focus. Tylor says that he has lighted brown paper in England with a parabolic mirror only 2 inches in diameter.² This instrument was certainly known in Pliny's time (A.D. 23-79), as he mentions its power of burning (Pliny, ii. 111), and probably even earlier. Tylor mentions the discovery of concave mirrors of iron pyrites in the ancient Peruvian tombs, but discredits Garcilaso de la Vega's story of their being used for kindling the sacred fire. The Chinese are acquainted with the burning mirror, their name for it being "Kin-suy."

Optical Methods—The Burning Lens.—The principle of the burning lens is the same as that of the burning mirror, except that the rays of heat are refracted instead of being reflected. It must be made of a substance through which rays of heat can pass readily, and its surface must be convex or spherical. The use of the burning lens for producing fire is described in the "clouds" of Aristophanes (Aristoph., "Nubes," 757), and it must,

¹ Tylor, p. 247; quoting Bastian, "Oestl. Asien," vol. ii. p. 418; Cameron's "Malayan India," p. 136.

² Tylor, p. 252.

therefore, have been known to the ancient Greeks. The Chinese use the burning lens for lighting fires, and the Siamese for obtaining the sacred fire.¹ Pliny also mentions the burning lens (xxxvi. 67, xxxvii. 10).

Chemical Methods—The Brimstone Match.—The chemical methods of producing fire have during the present century superseded all others. The various kinds of lucifer matches belong to this class. The earliest form of match was used in connection with the flint and steel, and was known as the "brimstone match." These matches consisted of thin strips of highly resinous or very dry pine wood, about 6 inches long, with pointed ends which had been dipped in melted sulphur. Thus prepared, the sulphur points could be instantly ignited by a spark struck into tinder with a flint and steel. The brimstone match was almost in universal use during the first quarter of the present century, and marks the transitional stage between the mechanical and chemical modes of obtaining fire.²

Chemical Methods—The Instantaneous Light Box.—The first purely chemical means of producing fire was introduced about the year 1830, and was called the "Instantaneous Light Box." It consisted of a small tin box containing a bottle filled with sulphuric acid (in which a sufficient quantity of fibrous asbestos was soaked to prevent it spilling), and a supply of properly-prepared matches. These matches were small splints, about 2 inches long, coated with a chemical mixture of the following ingredients:—chlorate of potash, 6 parts; powdered loaf sugar, 2 parts; gum arabic, 1 part—the whole coloured with a little vermilion, and made into a thin paste with water. The splints were first dipped into melted sulphur, and afterwards into the prepared paste. The light was obtained by dipping the prepared ends of the matches into the sulphuric acid. There were two strong objections to the instantaneous light box—firstly, that the sulphuric acid was dangerous, and secondly, that the matches rapidly absorbed moisture. This apparatus was, consequently, soon superseded by the lucifer match, which, though not the same as the form of match now in use, has handed down its name to it.

¹ Tylor, p. 249; quoting Davis, vol. iii. p. 51; Bastian, "Oestl. Asien.," vol. iii. p. 516.

² Chambers's "Encyclopedia," vol. vi. p. 363.

Chemical Methods—The Lucifer Match.—The lucifer match consisted of small strips of wood or pasteboard, tipped with sulphur, chlorate of potash, sulphuret of antimony, and gum. The process of getting a light was by drawing one of the matches through a piece of bent sandpaper. The friction caused the explosive materials to take fire, and light the sulphur-coated match beneath. Thus the explosives take the place of the fire drill or flint and steel in the older methods, and the sulphur helps to ignite the match instead of tinder. The gum in the composition is for making the chemical composition adhere to the end of the match during the operation of striking.

Chemical Methods—The Congreve Match.—The lucifer match was again superseded by the Congreve match still in use. It was tipped with phosphorus, nitrate or chlorate of potash, sulphur, gum, and colouring material. The lighting was effected by striking it on a piece of glass paper on the side of the box. A great drawback to the Congreve match when it was first introduced was the use of phosphorus, the fumes of which produce a most loathsome disease, causing the bones to decay. This difficulty was, however, got over by the introduction of an amorphous phosphorus, discovered by M. Schrötter, which answers its purpose just as well as the other, and is not injurious to health.

Chemical Methods—The Swedish Safety Match.—The last improvement is the Swedish safety match, invented by a Swede named Lundstrom, a large manufacturer of matches at Jönköping, in the year 1855 or 1856. This match has been subsequently patented in this country by Messrs Bryant and May. The peculiar advantage of the safety match is that it will light only on the box. This is effected by dividing the combustible materials between the match and the friction paper. In the ordinary lucifer match the phosphorus, sulphur, and chlorate of potash are altogether on the match, which ignites when rubbed against any rough surface; but in the safety match the chlorate of potash and sulphur is placed on the match and the phosphorus on the friction paper, so that neither match nor friction paper can take fire singly under ordinary circumstances.

Chemical Methods—The Döbereiner.—Before lucifer matches came fully

into use, a chemical apparatus known in Germany as "döbereiner" was used to a considerable extent for obtaining a light. It consists of a cylindrical glass jar, 4 inches in diameter and 6 inches high, with a flat trap cover, from the centre of which hangs down a glass bell, 2 inches in diameter and $4\frac{1}{2}$ inches long, reaching down almost to the bottom of the jar. Inside this bell are suspended half a dozen square pieces of zinc with holes in them, so that they can be threaded on an iron wire. On the top of the cover is a jet and stop-cock opening out of the bell, and in front of it a small chamber containing a small bit of spongy platina. The jar is filled with dilute sulphuric acid, which, acting on the zinc, generates hydrogen gas. When the gas is allowed to play upon the platina it renders it incandescent, and a light can be obtained by applying a spill.

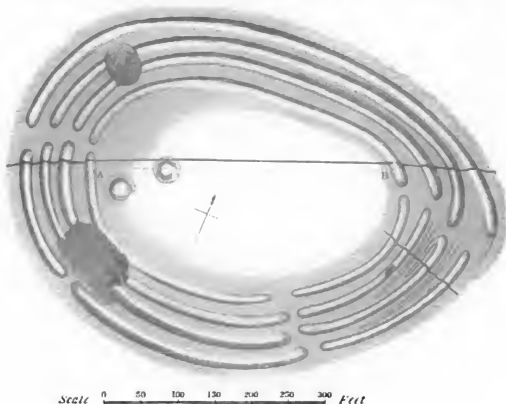
Electric Methods—The Electric Spark.—Fire can be obtained anew by means of the electric spark, which is caused by the increased resistance offered to the passage of a current of electricity passing between the opposite poles of a battery, when there is a small gap in the wire conveying the current. Several attempts have been made to utilise electricity for lighting, but it does not appear likely at present to take the place of matches for producing fire anew, so that the electric match must remain amongst the possibilities of the future.

In conclusion, it only remains for the author to acknowledge how largely he is indebted to the works of E. B. Tylor, Sir J. Lubbock, D. Wilson, to Chambers's "Encyclopedia," Dr Ure's "Dictionary," &c., for the greater part of the information contained in this paper.

II.

NOTICE OF A CAMP ON THE MIDHILL-HEAD, ON THE ESTATE OF BORTHWICK HALL, IN THE PARISH OF HERIOT, MIDLOTHIAN, THE PROPERTY OF D. J. MACFIE, Esq. By W. GALLOWAY, Esq., ARCHITECT, CORR. MEM. S.A. SCOT.

The Midhill is so named from the position it occupies in the range of elevated ground, bounding on the south the lower course of the Heriot, previous to its entering the more expansive vale where flows the infant Gala. This elevated ground forming an eastern outlier of the Moorfoots, covers an area of about 3 miles in length by half a mile in breadth. At



Ground Plan of Camp on Midhill-Head.

its western extremity it attains in the Dod-law, an elevation of 1550 feet above the sea-level, and after a depression of over 300 feet rises again in

the Midhill to a height of about 1300 feet,¹ and from thence rapidly declines eastward, until lost in the valley of the Gala.

The camp forming the immediate subject of notice occupies the entire summit of the Midhill, its outline being that of an irregular oval, with the major axis east and west. This form is directly due to the natural conformation of the hill, which elongated in the general direction of the range of which it forms a component part, rapidly declines on the north and south, toward the deep lateral valleys where flow the Heriot, and its affluent the Corschope Burn. This point is specially illustrated by the longitudinal and transverse sections through the camp shown on the plan. Taking as our data the summit-level, and the extreme limit of the entrenchments in each direction respectively, it will be found that toward the east and west, there is no appreciable difference in the gradients, the fall either way being at the rate of 1 foot in 29, while on the north within the same limits, the fall is 1 foot in 7, and on the south 1 foot in 9. The declination of the ground on the north is thus more than four times, and on the south more than three times as great as it is toward the east and west.²

This strict adherence to the natural formation of the ground, combined in several points with a careful adaptation of its special features, clearly indicates that to whomsoever, or to whatever period the origin of the camp may be attributed, beyond the necessity of enclosing a given area on a selected site, with fortified lines, its constructors were guided by no more formal or preconceived principles of castrametation.

¹ In the Ordnance Survey Maps of Midlothian, the Midhill is marked as the site of a trigonometrical station, but the total height is not stated. There is, however, a contour line given at 1250 feet, and from the position it occupies in relation to the camp, the summit level cannot be much under the figure stated.

² The 1250 feet contour line describes, of course, an oval of much more elongated form than the camp, the dimensions being 2150 feet from east to west, by 850 feet from north to south, the length being thus fully two and a half times greater than the breadth. This discrepancy between the outlines of the two ovals leads to a considerable deviation in point of horizontality in the entrenching lines. Thus, while the western crest is only 1 foot 11 inches, and the eastern crest 5 feet 7 inches, below the summit level, the northern crest of the inner line, is 6 feet 9 inches, and the southern crest 13 feet below it.

The outline of the camp and its disposition on the summit of the hill has been accurately determined by triangulation at 50 feet chain lengths, on a central line carried along the summit-level. From the plan it will be seen that by this line the camp is divided into two unequal halves, so that while fully occupying whatever of level space on the north the top of the hill affords, from the more favourable lie of the ground the area of the camp trends chiefly toward the south, or rather the south-east.

The space thus enclosed from crest to crest of the inner line of entrenchments measures 410 feet in extreme length from east to west, and 284 feet from north to south, and over the extreme limit of the entrenchments, the dimensions are from east to west 656 feet, and from north to south 474 feet.

The entrenchments are four in number; and as the outline of the camp is determined to a great extent by the natural formation of the hill, so, within certain limits, these entrenchments exhibit the same characteristics as contour lines, contracting where the gradient is steep, expanding where it is more gentle. On the north accordingly, where we found the declination to be greatest, the distance from crest to crest of the outer and inner entrenchment ranges from 75 to 80 feet, and the entire space covered from 85 to 90 feet in breadth. On the south and west the distance from the outer to the inner crests ranges from 90 to 95 feet, and the total space from 100 to 106 feet. Toward the east, where from reasons to be afterwards mentioned, the expansion is quite exceptional, the extreme distance from the outer to the inner crests is 117 feet, and the total space covered over 130 feet.

The entrenchments are in general still very distinct, the greatest obliteration being on the north side or that facing Borthwick Hall. On the east side generally, and especially toward the north-east, the various entrenching lines are very sharp and well defined. At this point, indeed, the several escarpments attain their maximum height of from 4 to 5 feet, and exhibit the most perfect preservation. One noticeable feature is that at the base of the two central escarpments there runs a supplementary trench or slight cutting averaging from 3 to 4 feet in breadth, and from 1 foot to 18

inches in depth, so giving additional height to the escarpment. The remainder of the fosse, acting as a kind of banquette, is comparatively level, or with a gradual inclination toward the next outward crest. This formation gradually dies away into the obliterated lines on the north, and is a peculiarity to be observed only in this part of the entrenchments.

The various lines of entrenchment have been at several places more or less partially broken in upon for the purpose of quarrying stones, probably to aid in building the adjoining dykes ; but they are specially interrupted only at three points,—on the east, south, and west. Of these interruptions the most important is that toward the east, and from the peculiar manner in which the entrenchments themselves are arranged in relation to the several breaks, we may assume it to have formed the principal entrance to the camp.

Commencing with the inner line of entrenchment, there is a very distinct opening or break 9 feet in width, leading to an expansion of the intermediate space or fosse broadened out to at least double its usual width. This opening is covered directly in front by a prolongation of the second line of entrenchment, the break in which occurs more to the eastward than in the previous one. The intermediate space here is extremely contracted, and the opening is again covered by a prolongation of the third line of entrenchment, the break in which occurs still further to the east, the width, 13 feet, being rather greater than the first two. This break opens directly into a very considerable expansion of the fosse or space intermediate between the third and fourth entrenching lines. The opening in this case is not covered as previously by any prolongation, but directly fronts the break in the fourth entrenching line, which is of considerable width, or from 28 to 30 feet.

In this case, however, there is one peculiarity, viz., that the line of entrenchment itself is discontinuous, and if the lines on either side of the opening were prolonged, they would not meet but overlap. This peculiarity arises from the outermost entrenching line on the north-east being run out, so as not only to include a large expansion of the intermediate space or fosse, but also to overlap the corresponding line on the

east. Access could thus be obtained to the central area only by a very devious approach; and the ingenious manner in which the various openings and lines are enfolded and overlapped, seem to me peculiarly to suggest a carefully-arranged system of defence. This idea is still further strengthened by an examination of the entrenchments on the southern side of what we have designated the principal approach to the camp. We here find that in the spaces between the three outer lines of entrenchment, there are intermediate or supplementary mounds, much smaller in their dimensions than the main lines, but forming, nevertheless, a marked and unmistakable feature in this part of the earthworks.

From the plan it will be noticed that in the space or fosse between the two outer entrenchments, there is such an intermediate mound merging at its northern extremity in the elevated approach leading to the camp, and after running on between the two entrenchments for about 170 feet, gradually loses itself in the ordinary level of the fosse. In the space between the second and third lines, there are two intermediate mounds, one of them nearly 150 feet in length, and the other about 60 feet, connected at its northern extremity with the entrenchment immediately in advance of it. Through the kindness of Mr Macfie, a cutting was made through this most interesting portion of the earthwork. The object of the cutting was to determine the exact outline of the undisturbed soil, which was easily distinguished from the comparatively thin layer of black mould forming the surface accumulation. It was found that this accumulation is pretty equable, inclining, however, to be thinner on the crests, and deeper in the hollows, in all their main features the entrenching lines and intermediate mounds presenting no change save in their outlines being sharper and more definite.

This series of mounds occurring only in the two outer fosses toward the south-east, and corresponding with the banquettes noticed in the same fosses on the north-east, both flanking to a considerable distance what we cannot but regard as having been the main approach to the camp form certainly a very striking and significant feature, and must in all probability have served a common purpose. I trust it is not trenching too far on the for

bidden ground of theory to suggest that, in the event of an attack being directed against this the main entrance to the camp, these mounds and banquettes were designed to give greater facility to the defenders in the discharge of missile weapons. We assume, of course, that the lines as we now see them formed the mere bases for a series of stockades occupying their crests, and rising to some height above them. In this case the advantage of an elevation to the defenders within the fosses is evident. But it may be asked, Why change the formation? Why have banquettes on the one side, and mounds on the other? To me this change seems entirely due to the varying gradients of the ground. To the north-east, where the fall is rapid, the steep slope required little more than to be scarped, to the south-east where the fall is much more gentle the entrenching lines required a more artificial formation.

The second point at which the lines of entrenchment are interrupted is on the south. We find here a break in the first line of about 25 feet width, and with very slight deviation, succeeding ones, respectively 9, 11, and 12 or 13 feet in width.

There is no such marked intricacy of arrangement as occurs in the approach just noticed. The deviation from a direct line is comparatively slight, and the only feature casting doubt on its modern formation is the discontinuity to a certain extent of one or two of the entrenching lines.

The late Provost Lawson, while proprietor of the estate, certainly did use this break in the lines as a means of crossing the hill. The carriage road formed by him, leading down towards New Corschope, starts at this very point; but whether this was a mere adaptation to an old approach, of involved the cutting of a new one, I do not know.

The third interruption occurs on the west side, and in this case there is certainly no feature to interfere with the idea of its being entirely modern. It lies in the direct line of the principal approach by road to the camp from the west, and in connection with the road just mentioned was used by Provost Lawson as a carriage drive. These roads, and also the dry stone dyke fencing in the summit of the hill, are all of recent origin,

having been constructed by Provost Lawson, and form part of the improvements effected during his tenure of the estate.

I am also informed that, in company with the late Sir J. Y. Simpson, excavations were made by him within the area of the camp, but never, so far as I could learn, with any result in the way of discovery. Towards the western extremity there are two circular depressions as indicated on the plan; but it is impossible to determine what they may have been.

III.

NOTICE OF A JET NECKLACE AND URN OF THE FOOD-VESSEL TYPE, FOUND IN A CIST AT BALCALK, TEALING, AND OF THE OPENING OF HATTON CAIRN, PARISH OF INVERARITY, FORFARSHIRE. BY JOHN STURROCK, Esq., F.S.A. Scot.

Cists at Balcalk.—The urn and necklace which I now exhibit were found in a cist which I examined recently at Balcalk in the parish of



Fig. 1. Urn from the Cist at Balcalk (5½ inches high).

Tealing, Forfarshire. I found two cists within a short distance of each other, and close to the surface of the ground. The first contained nothing

but some pieces of a broken urn and fragments of bones unburnt. The second cist measured 3 feet 2 inches in length by 2 feet wide and 2 feet deep. It contained the remains of an unburnt skeleton embedded in fine sand which completely filled the cist. The body had been deposited in the contracted position characteristic of such interments. Behind the right shoulder was an urn (fig. 1) of the food-vessel type, 6 inches diameter, $5\frac{1}{2}$ inches high, and ornamented round the inside of the lip with a single row, and round the outside with a double row, of impressed markings as of a twisted cord. A double row of similar markings surrounds the shoulder of the urn, and in the space between it and the lip there is a double row of zig-zag lines of the same character. On the sloping part of the urn underneath the shoulder there is a band of similar ornamentation in zig-zag lines. The urn stood upright on the bottom, and immediately beneath the bottom, and in contact with it, were the small three-cornered flint knife (fig. 2) and the fragment of a bronze pin or awl (fig. 3), which are also exhibited.



Figs. 2 and 3. Flint Knife and Bronze Pin from Cist No. 2 (actual size).

Between the shoulder and the neck of the skeleton, and round the neck, in fact, were the beads and plates of the necklace of jet or cannel coal (fig. 4), which are altogether 147 in number. They lay in position apparently as if the necklace had been on the neck of the body when deposited in the cist. I removed them very cautiously, and in doing so observed that the arrangement was, so far as I could judge, such as I have endeavoured to reproduce in putting the different portions of the necklace together. It consists of 140 beads of "bugle" shape, *i.e.*, cylindrical, but tapering regularly from the middle to the ends, two terminal plates of triangular form and four plates of trapezoid form, which go to make up the central part of the necklace, and a triangular pendant which, with a number of the bugles, lay below the central part of the necklace. This is not only the most complete necklace of this kind that has yet been discovered in Scotland, but

the most perfect ever found in Britain, and, therefore, I may say the most perfect of its kind in existence.



Fig. 4. Necklace found in Cist No. 2.

Hatton Cairn.—The Hatton Cairn, in the parish of Inverarity, Forfarshire, is one of nine cairns all situated within a few hundred yards of each other. Some of these have been removed for building purposes ; and when

they were thus being cleared away, stone-cists with decayed bones in them and specimens of urns of different sizes were discovered. The smaller urns came in handy for flower-pots, the larger sizes were left to be destroyed by the weather. The Hatton Cairn is chiefly composed of stones, collected from the neighbourhood. It measures 30 feet in diameter to the inner circle, which is composed of large stones set on edge and firmly imbedded in the soil. Some of these boulders are so heavy that it must have taken six men to lift them on edge. Inside of this circle were placed the stone cists. They were formed of rough slabs set on edge and imbedded a few inches in the natural surface of the ground. They were placed with their sides parallel to the line of the circular enclosure of stones set on edge which surrounded them, and was continued all round the cairn. These cists were on an average a little over 3 feet in length, about 18 inches wide, and 18 inches deep. But in the centre of the cairn there was a much larger cist, 4 feet 2 inches long, 2 feet wide, and 20 inches deep. Like the others, its sides were large flat slabs, but the cover was composed of two stones of great size, one laid above the other, and the lower one large enough to cover the whole cist.

The sketch now exhibited shows the relative positions of the cists in the cairn.

Beginning at the south side the first cist was opened in 1876 without its being recognised, as the man who was working had no idea that a cist was such a rudely-constructed thing. He preserved some of the bones, however, and this was the only cist in which bones were found. The next cist opened was the large one in the centre. The cover stones being so large, I had the end of the cist taken out. There was no urn in the cist, and nothing was found in it but a very fine specimen of an implement formed of chipped agate (fig. 5). The next cist opened was the small one situated nearly over the top of the



Fig. 5. Knife of Agate.
(Actual size).

central cist as shown in the sketch. In it were the fragments of a small urn which I have reconstructed. In 1877, as the farmer had cleared away most of the loose stones, I was again successful in laying open a few more of the cists composing the circle which I have already described. They were all similar to those formerly opened, and all empty except one on the west side, in which we found a very fine urn. Next year I laid open another cist, but like so many of the rest it was quite empty.

Stone Cists near Kirkbuddo Station.—When my attention was called to the gravel pit near Kirkbuddo Station, one stone cist had been found in it containing remains of decayed bones and a fine specimen of an urn, highly ornamented, which the farmer had broken to pieces to see what it was made of. I was only able to pick up a few of the pieces, but by putting them together I have reconstructed the size and form of the urn. Making an inspection of the sides of the pit, I pointed out to the farmer a place where there were indications of another cist. Following up my hint he commenced the following day, and with the first blow of his pick laid open another cist, in which was a complete skeleton, unburnt, and a very fine urn similar in shape to the one previously found, but larger. This cist was 4 feet 3 inches in length, 21 inches wide, and 18 inches deep, the bottom being neatly paved with small rounded pebbles about $1\frac{1}{2}$ inch in diameter. A boar's tusk of large size was found beside the skeleton in the cist, along with several chips and flakes of flint.

In 1877, in walking over a field at Kirkbuddo, where numbers of cists and other articles have been found, I fell in with a stone cist of the long form. It was made of rude sandstone slabs set on edge, and covered with slabs of the same material, the covers being about 12 inches under the surface. The soil, being of a nature between sand and clay, showed the mode in which the material had been scooped out. This had been done apparently either with a stone or a piece of wood, and the bottom smoothed by the hands. The skeleton lay at full length with the head to the west, and was in good preservation. Part of the skull of another skeleton lay at the feet of this one. Nothing else was found in the cist, but on the surface

of the ground there were flint flakes and scrapers, some being nicely chipped. In some cists which had been previously found there were urns, which were either left or broken to pieces by those who first found them.

Flint Axes exhibited.—The three flint axes or celts, which I now send you for exhibition, are perhaps different from any specimens which you have in the Museum, being made of a bright yellow flint, chipped on the surface, and ground at the cutting edges. One specimen (fig. 6) measures $5\frac{7}{8}$ inches long by $2\frac{1}{4}$ inches mean breadth, and $\frac{3}{4}$ ths of an inch

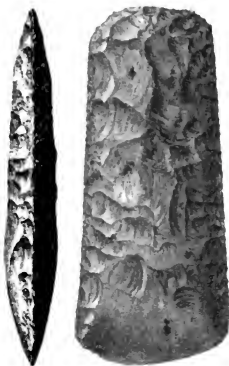


Fig. 6. Flint Celt.
 $5\frac{7}{8}$ inches long.

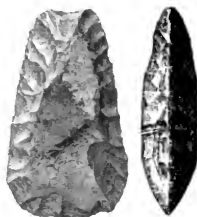


Fig. 7. Flint Celt.
 $1\frac{5}{8}$ inches long.

thick. Another measures $5\frac{5}{8}$ inches long by 2 inches wide at the cutting end, and 1 inch at the butt end, which is slightly damaged. This specimen was found some time ago in the vicinity of Dundee. Another (fig. 7) measures $1\frac{5}{8}$ inch long and 1 inch wide at the cutting edge, tapering towards the butt end, and about $\frac{1}{2}$ inch thick, and is also slightly damaged at the cutting edge; but it is, perhaps, the smallest ground flint

celt yet found in Scotland. Both specimens were found while preparing the ground for turnip seeds on the farm of Newton-Affleck, parish of Monikie.

The locality where these celts were found is in the vicinity of where an ancient burial-ground or cairn once stood, which was cleared away a number of years ago for building purposes. When clearing out the foundations of this cairn, the workmen laid open a number of stone coffins of the short kind, in most of which were urns, I believe, of the food-vessel type.

Jet Button exhibited.—I also exhibit a jet button of peculiar form and ornamentation found on Dundee Law (figs. 8, 9). I do not remember

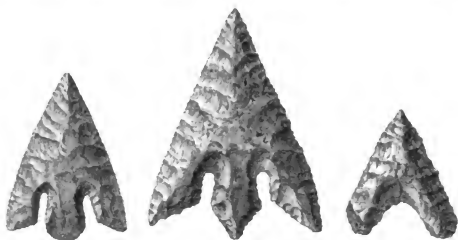


Figs. 8, 9. Jet Button, front and back.
(Actual size).

to have seen anything exactly like it figured in any of the archaeological works. Round buttons of nearly the same size, and having the holes similarly perforated, have been found on different occasions in cists in Forfarshire, and some specimens of these are now in the Museum. Mr Evans also figures some English specimens of the round form in his work on stone implements. But this specimen is remarkable for its peculiar shape and ornamentation, which do not seem to have been common among the many varieties of ornaments in this material.

Flint Arrow-Heads Exhibited.—The three flint arrow-heads (figs. 10, 11,

12) which are sent for exhibition, are the finest specimens in my collection. The largest measures 2 inches in length and $1\frac{1}{4}$ inches in breadth, and is beautifully worked to a finely symmetrical form, the edges being minutely serrated and the barbs and stem peculiarly formed. It was found at Wardneuk, Carmyllie, Forfarshire. The other arrow-head, of the same form, is smaller, but almost as finely worked. It measured $1\frac{3}{8}$ inches in length, and 1 inch in breadth. The edges are slightly curved and most



Figs. 10, 11, 12. Flint Arrow-Heads.
(Actual size).

minutely serrated. The form of the stem is slightly different from that of the larger specimen, and the barbs are not so much spread. This arrow-head was found at Petty, near Fordoun. The third is of the rarer type, having no stem, and hollowed in the base for the reception of the shaft. It measures $1\frac{1}{8}$ inch in length and $\frac{7}{8}$ inch wide, the extremities of the barbs are rounded off, and the edges are not so regularly and distinctly serrated as in the other two examples. It was found at Ellon, Aberdeenshire.

IV.

NOTICE OF A DRAWING OF A BRONZE CRESCENT-SHAPED PLATE,
WHICH WAS DUG UP AT LAWS, PARISH OF MONIFIETH, IN 1796.
By JAMES CRUIKSHANK ROGER, Esq., F.S.A. Scot.

[This communication was sent in the form of a letter to Mr Anderson, and is now printed as it was read to the meeting.]

ALDBOROUGH HATCH, *February 21st*, 1880.

DEAR SIR,—I regret that after considerable search I am unable to lay my hand on the notes made some years ago in regard to the drawing sent you the other day. I must therefore trust to my memory for such facts as I can recall. My attention was first directed to the subject of the sculptured stones by the discovery of the Govan Sarcophagus, an account of which was communicated by me to the Society in 1856. Subsequently to this date, my father, Mr Charles Roger of Dundee, mentioned to me incidentally that, when a very young man residing on his father's farm of Laws, in the parish of Monifieth, he had made a drawing of a bronze ornament found in a large mound which had been intersected by a newly-formed drain. Within this tumulus, as I understood him to say, surrounded with a cist formed of stone slabs, was a complete skeleton, but how placed I do not recollect, also some implements of bone, the form and character of which I do not remember, although I distinctly recollect his description of the ornament. This he represented as formed in the likeness of a crescent, and engraved on both sides with other symbols frequently met with on the Scottish sculptured stones. One side of the ornament contained a *Celtic inscription in Runic letters!* a combination in regard to which, although Dr Wilson has maintained the contrary, I have always felt exceedingly sceptical. This drawing had been mislaid for years, but my father had no doubt of its existence, and promised to search for it on his return home, which he did, but without effect. In searching through his papers after his death in 1865, I found the drawing inside an old

letter into which, I presume, it had been accidentally folded. My father stated to me that the original ornament (which was accidentally broken by the spade of one of the farm labourers who was excavating the drain) passed into the hands of the late Sir Alexander Ramsay Irvine of Balmain, who owned the farm of Laws, of which my grandfather, Peter Roger, was the tenant. On one side, as will be seen from the accompanying woodcut (fig. 1), is the spectacle and Z symbol, with the head and neck of some animal, to which I shall not give a name. The reverse side



Fig 1. Obverse of Bronze Plate.

which is shown in the woodcut (fig. 2) is engraved with a species of ornament similar in character to that met with on a seal of Holyrood Abbey, appended to a charter of the year 1141. Dr Wilson supposes the figure on this seal to be a representation of "the original wooden church, reared by the brethren of the Holyrood Abbey, on their first clearance in the forest of Drumselch." It seems to me with greater probability to represent a structure of the 12th century, clumsily executed and drawn in bad perspective. This seal is described by Mr H. Laing in his first volume of "Ancient Scottish Seals." He considers it to represent "the style of

building of the period," that is the period indicated by the charter to which it is pendant. Placed on this ornamentation, as exhibited in the drawing, is an emblem consisting of an expanded form of the letter V with terminal foliage. The characters engraved on the ornament, so many as remain, are plainly of the northern runic type, and read **YFIIIT:M** being with much probability, as I think, the remains of a very ordinary form of Norse inscription [GR]IMKIL : THA[NA : RAIST], Grimkitil engraved this. It is similar in kind to an inscription in St Molio's cave, at Arran, NIKULOS : THANE : RAIST., Nicholas carved or engraved this, but in regard to which

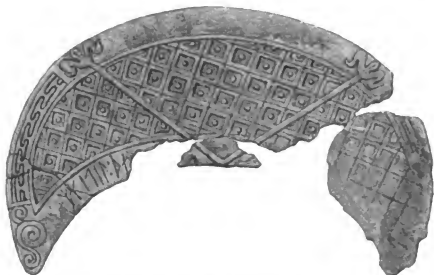


Fig. 2. Reverse of Bronze Plate.

Dr Wilson, confounding a carelessly-formed *t* with the letter *a*, renders the intermediate word *Celtic*, which he calls *ahane*! The drawing, which measures about $4\frac{1}{2}$ inches at its greatest length, it was stated to me, is of the same size as the original. It was executed in 1796. My father was born in 1780.

My late father made drawings and sketches of the whole, or nearly all, of the sculptured stones of Angus, at a time when very few persons were giving much attention to the subject. Of these, at a later period, he contemplated the publication. His industry was, however, rendered abortive

through the more important labours of the late Mr Patrick Chalmers of Aldbar. A few of the drawings are in my possession, but most of them are scattered. One of them, that of the Strathmartine stone, was with his permission reproduced in the first volume of the "Sculptured Stones of Scotland" by the Spalding Club. Dr Stuart, in allusion to myself as the medium of communication, remarks: "This gentleman's father made sketches of several sculptured stones of Angus in his youth, and among others those at Strathmartin," &c.,—a statement which falls very far short of what he actually accomplished. With reference to the *form* of the ornament represented by the drawing there is a curious notice of a negative kind to be found in "A New History of Ethiopia," published in London in 1682. The author, in allusion to a custom among the ancients of placing sacred symbols on altars within churchyards says, "We shall produce a marble monument digged up in one of the Christian churchyards, who (*sic*) if you observe it, is like a trunk or arched bier covered with a linen cloth in folds, *not a half moon table* like a C, as Aringhus imagined."

I need hardly remind you of the silver ornaments of the Norries Law tumulus first described in 1839 by Mr George Bnist, in a "Report" to the *Fifeshire Literary and Antiquarian Society*. A discovery similar in kind is related by Ferguson in his "Northmen in Cumberland and Westmoreland," of which he gives the following account:—"The most interesting barrow that has been opened in this district is one at a place called Beacon Hill, near Aspatria, which was explored, in 1790, by its proprietor, Mr Rigg. From its name and its commanding situation has arisen the very natural belief that this hill must have been the site of a beacon. But there is no other evidence of this fact; and as *Bekan* is a Scandinavian proper name found also in other instances in the district, and as this was evidently a Scandinavian grave, there can hardly be a doubt that the place takes its name from the mighty chief whose grave it was. On levelling the artificial mound, which was about 90 feet in circumference at the base, the workmen removed 6 feet of earth before they came to the natural soil, 3 feet below which they found a vault, formed with two large round stones at each side, and one

at each end. In this lay the skeleton of a man measuring 7 feet from the head to the ankle bone—the feet having decayed away. By his side lay a straight two-edged sword corresponding with the gigantic proportions of its owner, being about 5 feet in length, and having a guard elegantly ornamented with inlaid silver flowers. The tomb also contained a dagger, the hilt of which appeared to have been studded with silver, a two-edged Danish battle-axe, part of a gold brooch of semi-circular form, an ornament apparently of a belt, part of a spur, and a bit shaped like a modern snaffle. Fragments of a shield were also picked up, but in a state too much decayed to admit of its shape being made out. Upon the stones composing the sides of the vault were carved some curious figures which were probably magical runes.”¹ On the supposition that the symbols are Scandinavian, or at least that they originated among a people of Scandinavian ancestry, let me draw your attention to the fact that many of the Scottish standing stones and sepulchral mounds are associated with personal names of the northmen, for example such names as Bruce’s Howe, near Inverurie, Aberdeenshire; the Cat stanes found in various parts of Scotland; Clach stein, island of Lewis; Corrieknows, near Annan, Dumfriesshire; St Orland’s stone, at Cossins (plate xv of the *Sculptured Monuments of Angus*); Hawkstane, at St Madoes, Perthshire; Hirdmane stein, in Orkney; Mar’s Hill, on the line of the old road from Stirling to Queensferry; Stone of Odin, near the loch of Steinnis in Orkney, and the like, in which, as I think, are found the Icelandic personal names Bresi, Kótt-r, Klak, Kóri, Erland, Hank-r, Herd-mani, Már, Odin, &c. It is not doubted that these stone monuments were at one time ascribed to the Danes, Mr Buist says, without sufficient authority—*quod erat demonstrandum*. Other facts might be adduced, as the inverted boat formed monuments of Meikle and Govan.

¹ The original account, which Mr Ferguson follows to some extent, was communicated to the Society of Antiquaries in 1790, and is printed in the “*Archæologia*,” vol. x. p. 112. It says nothing about “magical runes,” but the markings themselves are figured. They have no resemblance to runes. It is evident that the account is not strictly accurate as to the dimensions and character of the sword, the skeleton, and vault, &c.—Eus.

Not the least important is the circumstance noted by Baring-Gould that while on a visit to Iceland he was shown a large stone which contained a modified form of the figure Z. Here are the facts as related by himself: "The priest informed me of the existence of a large stone lying on its side, and curiously carved, in the *tún* of Thor-fasther on the opposite side of the river. I at once crossed the river with Grímr, and visited the farm. We were shown the stone in question, which is about 12 feet long. The only marks on it are these



The larger of the two is certainly intended for Thor's hammer, a magical character. Whether this stone were used in heathen times for sacrificial purposes, or at a later period for the incantations of witchcraft, I cannot say."

Dr Stuart's statement that Christian crosses were frequently carved upon previously existing pagan monuments is evidently an idea derived mediately through the pages of Dr Conyers Middleton. The learned librarian of Cambridge University, in a paper printed in London in 1729, entitled "A Letter from Rome showing an exact conformity between Popery and Paganism," &c., says, at page 33, "'Tis certain that in the earlier ages of Christianity, the *Christians* often made free with the *sepulchral stones of heathen monuments*, which being ready cut to their hands, they converted to their own use." For this Dr Middleton cites the authority of Mabillon, *Her. Ital.*, p. 225, and Aringhus, "Account of Subterraneous Rome," lib. 13 c. 22. I confess I fail to perceive the application to the Scottish sculptured stones although some may think otherwise.

Before concluding, it occurs to me to place upon record the fact that the Govan sarcophagus, to which I have referred, with one or two others similar in kind, were originally placed within semi-circular arches formed within the substance of the wall of the ancient parish church of Govan, a structure of the Norman period, which was removed in 1762. My informant, an octogenarian, was the grandson of the contractor who carted away the original building. He had a perfect recollection of all the facts as related by his progenitor. I stated in my paper to the Antiquaries in de-

ference to the opinion of the late Dr Leishman, but contrary to my own judgment, that a mark on the hind quarter of the horse sculptured on the sarcophagus was probably an indication of a caparison. I have no doubt that the mark in question is that of the mason who sculptured this remain. I am disposed to believe that the sarcophagus found at Govan is not older than the beginning of the 12th century.—I remain, yours truly,

J. C. ROGER.

[Sir Alexander Ramsay of Balmain has stated, in answer to an inquiry addressed to him by Mr Anderson, that he has no knowledge of the existence of such a bronze plate, and had never heard of its discovery].

MONDAY, 10th May 1880.

JOHN R. FINDLAY, Esq., Vice-President in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows of the Society :—

J. WYLLIE GUILD, Esq., St Vincent Street, Glasgow.

ALEX. MACKENZIE, Esq., Editor of the Celtic Magazine.

Capt. PATRICK STIRLING, yr. of Kippendavie.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By Rev. JOHN STRUTHERS, F.S.A. Scot., Prestonpans.

Cinerary Urn, 14 inches high and 12 inches diameter, found at Birseley near Prestonpans. [See the subsequent Communication by Rev. Mr Struthers.]

(2.) By Mrs STEPHEN WEBSTER, 6 Dean Park Crescent.

Celt of basalt, 5½ inches in length, 3 inches in breadth, and 2 inches in greatest thickness, flatter on one side than on the other, rounded at the butt, and having a groove an inch in width cut round the convex side immediately under the rounded butt.

Flat Axe Head of copper, 2 inches long, $1\frac{1}{4}$ inch wide, and $\frac{1}{4}$ inch thick, slightly expanded at the cutting edge.

Part of a tanged implement or blade of bronze, 4 inches in length and about $\frac{1}{8}$ th of an inch in thickness ; the tang entire, the blade broken.

Thin Blade of bronze, $2\frac{1}{2}$ inches wide, $1\frac{1}{2}$ inch deep, and less than $\frac{1}{16}$ th of an inch in thickness, having a round handle of bronze attached to the middle of the back of the blade, $\frac{1}{4}$ th of an inch diameter and 4 inches in length. The handle terminates in an animal's head. Blade and handle are cast in one piece.

All from the Argentine Republic, South America.

(3.) By R. CADELL, Esq., Cockenzie.

Celt of greenstone, $3\frac{1}{2}$ inches in length, 2 inches in width, and $1\frac{1}{4}$ inch in greatest thickness, oval in section across the centre of its length, and tapering to a bluntly-pointed butt, from the Shevavy Hills, 200 miles from Madras, India.



Jar found at Leith (6 inches high).

(4.) By ROBERT PATERSON, M.D., Leith.

Small Jar of coarse earthenware, with narrow neck and flattened handle on one side, found in excavating the foundation of an old house in Leith,

imbedded 6 feet under the foundation in a stratum of blown sand. The jar is 6 inches high, $3\frac{1}{4}$ inches in circumference at its mouth, and 15 inches in circumference at its widest part, and is of a shape and make which was common in Europe in late Mediaeval times.

(5.) By ALEXANDER CURLE, Esq., F.S.A. Scot.

Two polished Axes of diorite, 3 inches and $4\frac{1}{4}$ inches in length, with stag's horn sockets, from a lake-dwelling in Switzerland.

(6.) By EDWARD BURNS, Esq.

Agate matrix of the seal of the Edinburgh and Dalkeith Railway Company, 1826. The seal is circular, $\frac{5}{8}$ ths of an inch in diameter, and bears in the centre the arms of Edinburgh with the designation of the company round the border.

(7.) By ROBERT DICKSON, Esq., Surgeon, Carnoustie, F.S.A. Scot.

Oval Stone, being a regularly-shaped boulder of quartz, $3\frac{3}{4}$ inches in length, $3\frac{1}{4}$ inches in breadth, and $1\frac{3}{4}$ inches in greatest thickness, having an oval hollow $2\frac{1}{4}$ by $1\frac{3}{4}$ inches diameter and half an inch deep, scooped in one of its flat sides, the other bearing an oblique depression similar to those of the "belt stones" of the Iron Age of the Scandinavian Antiquaries, which were oval quartz pebbles suspended at the girdle, and used for point sharpening, by which they were marked with longitudinal depressions. This specimen is remarkable from its having an oval hollow on one side and a longitudinal hollow on the other. No similar specimen exists in the Museum. It was found at Dunnichen, Forfarshire.

(8.) By R. J. A. HAY, Esq. of Nunraw, F.S.A. Scot.

Life of Father Ogilvie, S.J. By Charles J. Karslake. Second edition. 12mo.

(9.) By B. HOMER DIXON, Esq., the Author.

The Image of the Cross and Lights on the Altar. 8vo. Toronto, 1879.

(10.) By Mr ROBERT GLEN, Bank Street.

Collection of Piobaireachd, or Pipe-tunes, as verbally taught by the M'Crimmon Pipers in Skye. Reprint, 1880.

(11.) By JOHN SHEDDEN DOBIE, Esq., F.S.A. Scot.

Kerr of Kerrisland. By R. M. Kerr, LL.D. 8vo. Privately printed.
Monfode of that Ilk. By R. M. Kerr, LL.D. 8vo. Privately printed.

There were also exhibited—

(1.) By R. B. ARMSTRONG, Esq., F.S.A. Scot.

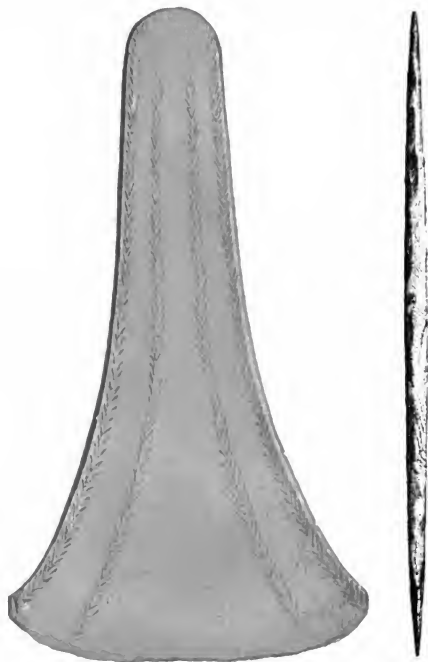
Tracing of a Plat of the Debateable Ground betwene England and Scotland, from the original in the British Museum.

(2.) By WILLIAM RAE, Esq., Roschill, Lockerbie.

Urn and Bronze Blade, found at Shuttlefield, Lockerbie. [See the subsequent communication by Mr Rae.]

(3.) Purchased for the Museum through ALLAN MATHEWSON, Corr. Mem. S.A. Scot.

Bronze Celt of unusual size, and with ornamentation of a similar pattern on both sides, found near Nairn. This celt is the second largest in the collection, being only surpassed in size by the Lawhead Celt (figured in the Proceedings, vol. vii. p. 106), which is $13\frac{5}{8}$ inches in length, and weighs 5 lbs. 7 oz. The present specimen, which is $10\frac{3}{4}$ inches in length, and 6 inches in greatest width and $\frac{3}{8}$ ths of an inch in thickness, is chiefly remarkable for its ornamentation, which is shown in the accompanying woodcut.



Bronze Celt found near Nairn ($10\frac{3}{4}$ inches in length).

The following Communications were read :—

I.

NOTICE OF THE DISCOVERY OF A SEPULCHRAL URN AT BIRSELEY,
PARISH OF TRANENT, NOW PRESENTED TO THE MUSEUM. By
REV. JOHN STRUTHERS, LL.D., F.S.A. Scot.

The accompanying pieces of an ancient Sepulchral Urn were found in the course of tiring a quarry belonging to Mr John Wilson of Tranent a few hundred yards eastward of the old house of Birseley, to the south of



Urn found at Birseley, near Prestonpans (14 inches high).

the railway station for Prestonpans. The urn was entire when discovered by the workmen, about 18 inches below the surface, but fell to pieces

when somewhat rudely handled in the search for something valuable amid the charred bones that it contained.

In the near neighbourhood, that is within 3 or 4 yards of the place where the urn was found, and about 2 feet below the surface, there was also discovered a stone cist of the usual construction,—composed of four or five large slabs, such as are common in the fields around; set on edge about a foot and a half apart, with similar flat stones covering the same, and at each end; and containing a mass of darkish earth, but no relics or implements of any description.

The site of these deposits is to the south of the public road from Musselburgh to Tranent, and commands a full view of the Firth of Forth, such as may be presumed to have attracted the admiration of even the earliest settlers on its shores, if not also to have been in near proximity to one of their favourite camping grounds. Within a quarter of a mile of the same place the Roman medicine stamp, described by the late Sir James Simpson, was found above thirty years ago.

The pieces of the urn have now been put together, and its form and ornamentation are well shown in the foregoing woodcut.

II.

NOTICE OF AN URN AND BRONZE BLADE, FOUND AT SHUTTLEFIELD,
LOCKERBIE. BY WILLIAM RAE, Esq., ROSEHILL, LOCKERBIE.

Mr Rae says in his note to Mr Anderson, dated 15th April 1880:—

“With regard to the ancient relics found here, I send you a paragraph from our local paper which gives as good an account of the circumstances as I can possibly give, the editor having stated the case exactly as it happened:”—

“On Saturday an urn, doubtless containing the cinerary remains of some ancient inhabitant of the district, was discovered at Shuttlefield, near Lockerbie. The field was being put under crop by two men, one of whom, on noticing a hole in a bare, sandy, and elevated portion of the

ground, put in his hand to find out what it contained. He brought up several pieces of half-burned bones, some of them about an inch in length. On further search a large quantity of bones and a bronze implement were discovered. Mr Rae of Rosehill happened to be passing at the time, and at his instance the men dug round the cavity, which he was satisfied contained an urn. In doing this, or in endeavouring to lift it out before the earth was thoroughly loosened, part of the urn was broken off. When the whole was got, it was found to have been a roughly-shaped urn of about a foot in depth. The urn was placed mouth downwards, and the top part being furthest into the ground, is in the best preservation.'"

Mr Rae further says in the same note :—

"The articles will be placed at your disposal if you think from the accompanying sketch that they will be of any service to the Society."



Fig. 1. Urn found at Shuttlefield (9 inches high).

The urn (fig. 1), which is of a form not unusual in connection with burials of the Bronze Age, has been reconstructed so far as the fragments admit

of reconstruction. It wants a portion of the bottom part, which had been taken off by the plough at some time previous to its recent discovery. The part of the urn that remains is 9 inches high and 9 inches in diameter. From the brim of the urn, for about 4 inches, the sides are perpendicular and ornamented with irregularly-placed oval impressed markings or indentations, as shown in the accompanying woodcut. At the depth of 4 inches there is a raised external ridge or rough moulding at the junction of the straight and sloping parts of the sides of the urn.



Fig. 2.
Bronze Blade.
(Actual size.)

The bronze blade (fig. 2) is unique in Scotland. It is one of the small thin knife-dagger blades which on account of their extreme fragility are seldom recovered entire, and it differs from all the specimens hitherto recorded in Scotland in having a square tang or prolongation of the blade for insertion into the handle. Part of this prolonged handle-plate is unfortunately broken and lost, but what remains exhibits the half of one small rivet-hole in the centre of the plate. The blade also differs from all known Scottish specimens in being hammer-marked on the surface instead of smooth; in having a midrib instead of being flat; and in being leaf-shaped instead of triangular like the thin, flat riveted knife-dagger blades, or simply oval like the smaller tanged blades. The point is, unfortunately, broken, and in its present mutilated condition the blade measures

3 inches in length, $\frac{5}{8}$ ths of an inch wide at the widest part, and $\frac{2}{3}$ ths of an inch at the point.

III.

NOTES ON CAIRNS, A STONE CIRCLE, AND AN INCISED STONE IN CARSPHAIERN, KIRKCUDBRIGHTSHIRE. By W. R. M'DIARMID, Esq., F.S.A. Scot.

The parish of Carsphairn is the most northerly in the Stewartry of Kirkcudbright, running like a wedge into Ayrshire and Dumfriesshire. Its most prominent features are Cairnsmore, and Loch Doon, from which issues the classic river of the same name. Cairnsmore is a huge mass of Silurian rock, its sides seamed with the grinding of glaciers, rising to the height of 2696 feet above the level of the sea. There is an old Galloway verse regarding this hill :—

“ There's Cairnsmore of Fleet,
And there's Cairnsmore of Cree ;
But Cairnsmore of Carsphairn
Is the highest of all the three.”

The parish is drained by two streams, Carsphairn burn and the river Deuch, which join each other near the parish church. The land is chiefly hilly, but almost in the centre of the parish there is an extensive plain, commencing near the junction of the streams already mentioned and extending northward for a distance of two miles, which is called the Holm of Daltallachan. That this has been the bed of an ancient lake is almost self-evident, and equally so that the barrier which cooped up the waters of Carsphairn and Deuch was a moraine which had crept down from Cairnsmore during the Ice Age, the remains of which are still visible on both sides of the stream at the point where it now flows past what was once its prison.

Some event or events of considerable importance appear to have occurred on the northern portion of this holm. On the holm itself there is a stone circle, and on the banks of the ancient lake, within a mile on the east, is the Cairn of Lagwine ; within half a mile on the north the remains of the Cairn of Daltallachan, and within a mile and a half on the south-west the Cairn of Avel.

No mention is made of these cairns or of the stone circle in the first Statistical Account of Scotland. In the second, dated 1844, the following passage is to be found:—"There are scarcely any traces of antiquities in this parish except some very large cairns. It is said that in removing some of these, stones in the form of coffins have been found containing human bones. One of the largest is not far from the church near the road leading to Dalmellington on the farm of Holm of Daltallachan. On the same farm and at no great distance are found large stones forming a circle."

This stone circle stands upon the northern end of the Holm of Daltallachan. It consists of thirteen stones, all of which now, whatever they may

have been originally, are in a horizontal position. They are all of the Silurian rock of the district; two of them contain pebbles and crystals of quartz. The circle is not now regular; it measures 67 feet 6 inches in length by 54 feet in breadth. On the north the stones lie in pretty regular order, and are distant from each other 4 and 5 yards; on the south side two of the stones now lie close together; the two largest stones lie on the east and west sides; the stone on the former is 6 feet in length, that on the latter 7 feet. On several of the stones there are holes which may be cup markings, but were more probably formed by the dropping out of pebbles.



Stone with Incised Cross.

The cairn of Daltallachan stood on the bank above the Holm, and was, according to the Statistical Account, one of the largest. It has now almost entirely disappeared, there being only a

few stones left, which serve to mark its former site. The stones of this cairn were gradually removed for the purpose of building dry stone dykes and sheepfolds. When the lower strata were taken away, about 1850, there was found at the bottom of the cairn an incised stone which was

removed to Daltallachan farm-house, and on the tenant leaving the district about five years ago, the stone was taken to the adjoining farm of Garryhorn, and it now stands in the shrubbery in front of the house. In 1877 I examined this stone and made a rubbing of it; and I revisited it recently in company with Mr G. H. Park, who made the drawing of the stone from which the foregoing woodcut has been engraved.

The Lagwine cairn stands eastward of the remains of the old mansion-house of Lagwine, the only house in the parish of Carsphairn with any claim to antiquity. The situation is charming, and the house is approached by a fine avenue of trees. It is interesting as being the reputed birth-place of Sir Loudon Macadam, the celebrated road engineer. According to the statistical account already quoted, "he was said to have narrowly escaped in infancy when the family mansion of Lagwine was consumed by fire. The body of Sir Loudon is interred at Moffat, but the family tomb is in the churchyard of Carsphairn."

The Lagwine cairn is formed of small stones unrounded by water, such as may be gathered at the foot of any rocky hillside. The form of the cairn is circular and can yet be made out without difficulty, but a large portion of the material of which it was composed has been removed for building purposes; there is a large sheepfold in the vicinity of the cairn. In circumference the cairn measures 363 feet; and its height is now about 20 feet.

The situation of Cairn Avel is more retired than that of either of the others, although it is the nearest to the village of Carsphairn, and this cairn is nearly intact. The stones which have been removed had lain on the north-west portion of the circle, and the height of the cairn appears not to have been lowered. The form is a somewhat irregular circle, 236 feet in circumference, and the height is fully 20 feet; although rude and simple in construction the effect of this piled up mass of stones rising on a lonely hillside is singularly impressive. It may be mentioned that while the cairns of Daltallachan and Lagwine take their names from the farms on which they stand, the cairn of Avel gives its name to the farm which is called Cairn Avel.

IV.

NOTICE OF AN ANCIENT CELTIC RELIQUARY ORNAMENTED WITH
INTERLACED WORK. BY PROFESSOR DUNS, D.D., *Vice-President*.

The Reliquary (fig. 1) which I have now the pleasure of presenting to the Society is from Ireland. It was found some years ago associated with bronze implements of various shapes in the Shannon, in a bed of silt about a foot thick, lying above gravel, underneath which many stone im-



Fig. 1. Bronze Reliquary found in the Shannon (4 inches long).

plements were discovered. Its shape is one frequently followed in tombs-- a rectangular chest with a gable-ended cover and sides sloped both at the back and in front. It is 4 inches long, 2 broad, $1\frac{1}{2}$ ths of an inch deep, the height of the gable-end being the same as the depth of the box. The measurement thus corresponds with that of the Monymusk reliquary

recently described by Mr Joseph Anderson. The bronze occurs in two distinct layers, the outer layer being very thin, the inner comparatively strong. The interior was, no doubt, as in the Monymusk specimen, lined with wood. Only one plate of bronze has been used for the inner layer both of the body and the sloping part of the lid severally. When put in shape and brought together the different parts were strengthened by narrow bands of metal being firmly riveted along the edges. This was the skeleton, so to speak, on which the outer layer, consisting of eight pieces and destined to bear the ornament, was placed. These were securely fastened at their edges by a beading, rounded on one side and having a flute below into which the edges fitted. The ornamentation of this beading is very indistinct, but, so far as it can be made out, it seems to have consisted of alternate open and filled-in loops, the latter suggesting a row of tiny knobs. On the upper edges of the body of the reliquary, and between the beading on the ends, are flat bands of bronze, a little thicker than the flat bands on the edges of the first layer, but of the same breadth. These are fastened by three strong rivets whose knobs externally form part of the ornament. These bands have plain edges, and between them the beautiful characteristic interlaced work occurs. The bar along the top of the lid, and the provision on the ends of the chest for the strap by which the reliquary was hung round the neck of the wearer, have disappeared, but we can form a fair guess at what they may have been by a glance at the Monymusk reliquary. The provision for the jewellery is simple but effective—consisting of three equal sized squares of ornamented bronze whose edges are corner-clubbed, two on the front of the box and one in the centre of the front bevel of the lid. One only of these remains, but the marks of the other two are distinct. From the one preserved we see the substantial way in which they had been fastened. Two rings from the square reached inside the box, where they were held by passing through them a closely-fitting metal pin. In the centre of these squares was a smaller one for the reception of a comparatively large stud or jewel. The ornamentation which surrounds the nest for the jewel is very pretty, and of a sort fitted to give an appearance of depth to the large square

itself, and of prominence to the centre stud. On the end of the reliquary where a portion of the thin outer plate still remains, traces of ornament may be seen, but these are doubtful.

So far as I am aware the literature bearing on Irish reliquaries is neither extensive nor important. In the course of a conversation which followed the reading of a paper, at a meeting of the Royal Irish Academy in 1838, by Sir William Betham, on two remarkable pieces of antiquity at Cong, in the county of Mayo, "Mr Petrie made some remarks in which he pointed out the original uses of ancient reliquaries, and it was resolved that Mr Petrie be requested to prepare a paper for the Transactions of the Academy on the history of these reliquaries, in order that the valuable material he had collected respecting them might be preserved and made more generally known." (Proceedings of the Royal Irish Academy, 1838, p. 211.) It does not appear that this was ever done, but in his elaborate and exhaustive inquiry into the origin and uses of the Round Towers of Ireland, he notices certain shrines of the 8th and 9th centuries, in gold and silver. These, no doubt, may have been larger than those worn on the breast, but it is to be remembered that the term shrine-temple (or place of worship) was anciently used for the mere model of the temple made to be carried on the person, or from place to place, as a reliquary. This, indeed, is countenanced by the well-known passage, Acts xix. 24; though some hold the "silver shrines" were only images of the goddess. But the use of the words *ναὸς* and *ἱερόν*, in this connection, is opposed to this view. Had the image alone been referred to we might have expected to have the term *ἀφιδρύμα*, the equivalent of the Latin *statua*, employed here, as it is by some writers, in the sense of *statuette*—'Ἀπρίμιδος ἀφιδρύματα. Moreover, there is proof that a diminutive image of the Roman legionary eagle was carried about in a small model temple. The "silver shrines" may thus have been either models of the temple alone, or models enclosing the image, or portable statuettes. Coins of Ephesus are extant having the likeness of Nero on the obverse, and a representation of the temple of Diana on the reverse.¹

¹ It would lead us away from our present purpose to illustrate these statements,

There are other two reliquaries which might be compared with that now under notice with the view of bringing out its shape and ornamentation, but I merely mention them here. These are the Monymusk specimen already referred to, and a specimen (fig. 2), evidently Irish, figured by Worsaae, on which there is some fine Celtic ornamentation ("Nordiske Oldsager i det Kongelige Museum, Kjobenhaven," p. 211). Some questions of considerable interest, as to Celtic ornamentation are referred to by

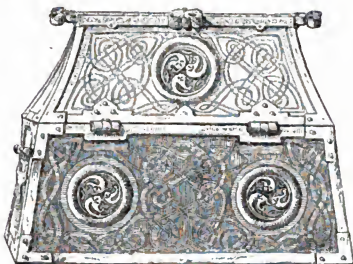


Fig. 2. Reliquary in Copenhagen Museum, 4.

Dr Reeves ("Ulster Journal of Archaeology," vol. viii. p. 210), in a short paper on "Early Irish Caligraphy," introductory to a translation of Dr Ferdinand Keller's monograph on "Illuminations and Fac-similes." (*Bilder und Schriftzüge*) from "Irish Manuscripts in Swiss Libraries."

"The principles of Irish ornamentation, says Keller, consist—(1.) In a single band or a number of bands, interlaced diagonally and symmetrically; so as to form by their crossings a great variety of different patterns. In common parlance, ornaments known as "pseudo-bands" (*Zweifelsstrike*).

though this might be done very fully. (See Montfaucon's "L'Antiquité Expliquée," vol. i. p. 147; and also the reference notes, chapter xvi. of "The Life and Epistles of Paul," by Conyb. and Hows., 1856,—references which I have verified. These, out of others, are given as authorities easily accessible).

(2.) In one or two exceedingly fine spiral lines, which wind round each other, and meet in the centre (*Mittelpunkte zusammentressen*), while their ends run off again, and form new spirals. (3.) In various bird, lizard, serpent, and dog-like animals, of a fantastic kind, often in a repulsive way stretched out lengthwise, and interlaced with each other, their tails and tongues being drawn out into bands. (4.) In a row of broken diagonal strokes (*gebrochenen diagonalstrichen*), which form different systems of lattice-work (*gitterwerk*), like to a kind of Chinese ornament. (5.) In panelling (*täfelwerk*) for the most part of triangular pieces (*dreieckigen feldern*), or other geometric figures as if to represent a draught-board (*brettspiel*), or a mosaic of parti-coloured stones."

Though these principles of ornamentation are drawn from a comparison of many examples in Irish MSS., they are equally applicable to the ornamentation met with on Irish bronzes. That Dr Reeves accepts Keller's principles without criticism, or hesitation, adds to their value. I have quoted them mainly with the view of supplying another illustration from the ornamentation on this reliquary. Keller,¹ G. F. Waagen, and other continental archaeologists trace this style to an eastern type. Herzog, referring to its presence on certain reliquaries sets it down as Byzantine ("Real Encyclopedia," Bd. xix. 5, 4). Were we to give any great weight to this theory of an eastern prototype for Celtic ornamentation some suggestive instances of, what might be held, its persistency under wide modifications might be adduced from the ornamentation of the "Codex Alexandrinus," one of the oldest and best uncial MSS. of the Sacred text. The date of this codex is about the middle of the 5th century. A fac-simile of the manuscript is being published by the Trustees of the British Museum, where it is deposited. From the parts already published the illustrations on the table have been selected. The

¹ "Alle diese Ornamente sind gewöhnlich in bestimmt abgegränzte Felder vertheilt. . . . Die schwierigste Aufgabe in diesen Gebilden sind ohne Zweifel die Spiralen. Es sind diess eigentliche Bravour-Stücke, die von der ausserordentlichen Sicherheit der hand des Künstlers einen glänzenden Beweis liefern. . . . Sie muss aus dem Oriente herkommen, oder wenigstens dort ihr Vorbild haben."—*Mittheilungen der Antiquarischen Gesellschaft in Zurich*, Band vii. pp. 73, 74.

resemblance of some of these to the ornamentation represented on the illustrative figures given by Keller is curious. I refer to such instances as the representation of dotted panelling on the border of the portrait of "St Matthew," and of interlaced work on the same (Taf. i.); of what one might almost venture to call forms of Greek frieze in triangular spaces (Taf. iii.); trellis-like work in compartments (Taf. iv.); ornamentation by diagonal strokes (Taf. v. vi. viii.); and of interlaced work (Taf. viii.) nearly, if not altogether, the same as that shown in the Codex. I am quite aware of the temptation to make too much of such resemblances, and to find in mere accidental varieties modifications of type. In art there is constant, though not continuous, growth. But with all growth there is change. I do not say progress, because the change might be in the direction of degradation. Besides, progress depends on the prevalence of forces not always self-recording. And even when they are, they are often too complex to be easily estimated and defined. You may not be able to hold such forces responsible for individual characteristics, and yet they may give that tone to an age out of which these characteristics spring. It is, however, a mistake to suppose that change may be measured, or is determined, by mere lapse of time. The modern deviation from the ancient may bear no proportion to the interval of time which separates them.

There are many collateral topics suggested by the examination of this reliquary, which, though full of interest and of material for varied exposition and illustration, still await exhaustive discussion in the literature of Christian antiquities and Christian art. Such, for example, as the definite signification of the terms *θήκη*, *ιεροθήκη*, *ἐγκολπιον*, *pyxis*, *pyxidula*, *capsa*, *capsula*, *capsella*, *scrinium*, *scriniolum*, &c.; the origin of relic worship, with the various forms of reliquaries; its widespread practice in heathen times, and the influence of the pagan practice on the early church; the periods at which it was most in vogue and the character of contemporary Christian thought and art; its power in begetting and furthering practices seldom supposed to have any connection with it and the like.

V.

ON THE INSCRIPTION AT NEWTON-INSCH, ABERDEENSHIRE.

By RALPH CARR ELLISON, Esq., F.S.A. Scot.

The inscription upon the stone at Newton-Insch consists of six short lines, of which the letters are partly those of the Anglo-Saxon Runic system of characters, but more of them those of the Romanesque alphabet introduced by the Christian church, and which gradually superseded the Runes through the influence of the clergy.

In 1867-68 I perceived this inscription to be demonstrably written in the Anglo-Saxon speech, and closely assimilated to the dialect of the Northumbrian gospels. And a paper of mine was read before this Society and printed in its Proceedings.

It seemed to me that the four latter lines could be clearly made out so as to bear the test of the severest Anglo-Saxon scholarship, and my reading was given accordingly.

The first two lines were, however, found to be so perplexing that I suggested two provisional readings for each of them, and I might have done better to leave these two lines altogether apart and unattempted for that time.

It happened very recently that the excellent photographs of the inscription came once more under my attention after a lapse of twelve years.

Before long I thought to perceive a most important element in the second line (the most difficult of all), such as had never been anticipated.

This was a term of nationality in the genitive plural, namely—GUMYRA, the softened form for CUMYRA, and signifying “of the Cumbrians”; just as we write Mont-gomery instead of Mont-comery, “Mount of the Comrians”; thus conforming in English to the laws of Welsh, Cambrian, and Cumbrian grammar.

The inscription is now read thus—

ETLTG (ETHELTOG)
 GUMYRA-MYTH':
 STONOWOETH'
 URGWELISI
 HUSSI
 NOVOY-DUTR.

The Princely Ruler	Princeps Dux
Of the Borders of the Cumbrians :	Limitum Cambrorum :
The Stonewrit record	Lapidis carmen
In Yore-Welsh	Antiquè-Wallicè
(His) Home-living	(composit)
Niece-Daughter	Domestica
(hath composed).	Neptis tanquam Filia.

The final syllable MYP' (*myth'*) MYPA is also a genitive plural, "of the bounds or Borders." GUMYRA-MYTHA, "of the Cumbrian Bounds,"

Now, what have we in the first line? A chief cause of my failure to read the first line satisfactorily in 1868 was that I conceived its final character to be the same as that at the beginning of the word, namely a Runic *æ* or a Romanesque *æ*. Whereas it now appears to be no other than a Romanesque *g*, like that at the commencement of the second line, which it nearly resembles. The first character in the first line is, as has just been observed *æ* or *æ*: the next seems to be *tl* in combination, for shortness; the next is *τ*, and then *g*. But what can ETLTG mean, or how can it be pronounced? The answer must be that it is a title of rank, subjected to contraction because familiar and well-known. We are to supply the vowels and read ETEL-TOG or ETHEL-TOG, Princely Commander, or Ruler.

In the fifth line my former reading of *thussi* has been abandoned, as the word seems to be HUSSI, doubtless the same as HUSE in standard Anglo-Saxon, and being the feminine form of HUSA, he who lives in one's house, a home-inmate. And instead of dividing the compound word forming the last line as NOVO-YDUTR', Nerve-Daughters, Niece-

Daughters, I now read rather NOVY-DUTR, Nevey-Daughter, as the plurality is not clear.

For an account of the Government of Cumbria under the Scottish Crown by Princely Rulers, with powers like those of the Lord-Wardens of subsequent times, see Chalmers's *Caledonia*, chapter v.

VI.

NOTES ON STONE CIRCLES IN DURRIS, KINCARDINESHIRE, AND ITS NEIGHBOURHOOD. BY R. ANGUS SMITH, Ph.D., F.R.S., F.S.A. Scot, &c.

Some time ago I had an opportunity of examining certain stone circles in the parish of Durris; and as they and their surroundings may present some points of interest even to those who may be familiar with the general subject, I send this account to the Society. My chief examination was made in 1873; but, unfortunately, some photographs which I took at the time were spoilt, and I was dissatisfied with the results which I had to show. I was especially annoyed at the failure of one representing an open digging at Esslie. I had trusted the preparation of the dry plates to a man unaccustomed to the work.

About the same time I received an account of several stone circles in Kincardineshire and Aberdeenshire, most of those that I had examined, with an exact enumeration of the stones and in many cases with measurements of each stone. The gentleman who sent them, Dr Wm. Brown of Edinburgh, knowing that I had given some attention to such subjects, wished me to make use of his material, and I have now to thank him. Dr Brown begins with a quotation from the "Statistical Account of Scotland," which will make a good preface to this.

The "Statistical Account of Scotland" (1842) has the following:

Kincardineshire, Banchory Ternan, "on the moorlands, at the bottom and sides of the hills, north and south, are many stone cairns, and others of a similar kind are said to have formerly existed in various central parts of the parish. One of these lately opened contained a small coffin about

a yard long, formed of rude stones, with a little dust within ; another had various bones of a human skeleton without any coffin. In the neighbourhood of those near Kerlock, on the farms of Esslie and Garrol, are three stone circles, the largest about 25 yards diameter and the others about 15 yards. In each the remains of an inner circle are visible, within which is a small cairn, and in all the outer circles are tolerably complete, containing what is called the altar-stone placed on the south, and of nearly the same dimensions in each, 8 feet long and 4 feet high. The whole are composed of micaceous schist, with some limestone and granite, the common stones of the place. In the moors around, besides many small cairns and some traces of former cultivation, there is a place called Knocking, or Rocking-stones, and a small peat bog, in which twenty years ago a circular copper vessel, apparently very ancient, and of very rude workmanship, was found. In a belt of planting between the road to Aberdeen and the Dee (on Inchmarle) a stone is seen standing 5 feet high above ground and 13 feet in circumference, which is the only remains of a large Druidical circle, almost entire about fifty years ago."

Durris.—"Several Druidical circles are to be met with in the parish, but none in a perfect state."

Whatever is quoted from Dr Brown's manuscript will be found marked as a quotation.

As I was staying at the house of the proprietor of Durris (James Young, LL.D., F.R.S.), I naturally went first to the nearest circle, which is on the hill called Cluny, or "The Rees o' Kleen," about 450 feet only above the sea, but having a very extensive view into Aberdeenshire : although, at a distance, it is not prominent on account of the much higher hills to the south or behind it. Before reaching the top of this elevation we pass through a plantation, and above this we find a cairn of considerable magnitude on the northern slope. It is from 30 to 40 feet in diameter, and is composed entirely of boulders. I know nothing more of it ; it may be merely a clearance cairn, a spot where stones are laid from ground when preparing for crops. Above this on the top of this hill is a stone circle very prominent. On going over the hill a great number of small clumps

of stones were seen, these are often considered solely as clearance heaps, although I have not seen them so numerous elsewhere. Still we must remember that the ground is peculiarly stony, and that in the whole parish there are great collections of stones, most of them, however, not in the usual cairn form : they usually line the road to an extent such as I have not seen elsewhere. The reason of these collections is well known. They are the work of men, some of whom are still living, as the work was continued by the father of Mr Maetier who lately sold the estate. At first I was disposed to think the Cluny hill a great burial-ground, and as indicating either a large population or one long continuing ; but familiarity with the habit of stone lifting had weakened although not quite removed this idea. The number of stone circles in the neighbourhood brings the opinion up again with somewhat of the early vigour. There is a greater collection of stone circles also in this district than on any spot I know, at least there were till lately, if we may judge from the information received of the destruction of several. Still, considering the number of people who die, we cannot hold that a dozen stone circles or small places of burial in the same number of lineal miles is a great amount, although to archaeologists of this era and in this country it is a considerable find. The land was lately forest land, and has not been known to be in a state fit for cultivation before last century ; and the local knowledge, which is so late that I can scarcely call it tradition, gives us the fact that the whole parish was stony, rough, and neglected, as if it could scarcely be a habitation for any but the dead. The belief is that this hill was not one of the places cleared in the last century ; and if we go back we certainly could not suppose that a steep hill looking north would be cleared when the plains below were neglected. When we go farther west and come to the farm of Garrol we find near the bottom of the valley, although still on ground south of the Sheeoch brook, and on its banks covered with heather, a similar accumulation of stones to that on "Kleen." They may be small cairns. The land is apparently quite incapable of cultivation. Everyone has observed the marks of furrows on ground long considered incapable of bearing grain ; and it seems as if we must make up our mind to believe that the early

inhabitants found it convenient to reap even very small crops for want of better, and to cultivate spots because of safety which they could not suppose fertile. A large crop is a comparative thing; and I have seen land cultivated in the west of Scotland from year to year when a good crop was not three times the grain sown, and the thrashing of any crop was a great uncertainty. We must remember, too, that the men who came here and began to sow grain were ignorant of the climate, and may have toiled long before they gave the struggle up in despair. That despair may have come in early ages to some, it has in some cases not yet arrived. It depends partly on the accessibility of markets and partly on the tastes changing. The knowledge of better land in other places sometimes makes men despise their own, and they stand idle all day earning, of course, nothing, even when they can earn the value of a shilling, because they hear that there are places in the world where they might earn five.

I could not help such thoughts coming to me under the circumstances described, and they may lead to some further ideas. On the lower ground spoken of on Garrol there was no stone circle among the small heaps, and no large cairn as at "the Rees o' Kleen." These numerous small heaps are also, I believe, incompatible with good husbandry. People speak of great burial-places as indicating great battles, but the "Rees o' Kleen" could scarcely have been a battle ground, and Garrol South is still more among the hills. Men die even where there are no battles, but great burial-places are generally near great populations. There are some exceptions.

It would seem that the Dee valley had a population in its south sufficient to produce men so prominent in their times that they obtained elaborate burial, and if we wonder where all their habitations are we may also ask, Why was there a castle of a chief at Durris when Edward I. went there in 1396, and when the land was desolate all around? We may reply there probably never was a time when hunting and fishing allowed no population to live in the valley since the days when glaciers covered it, and this may be an answer to the main question, but let us add also that a little grain may have from earliest times been sown.

I would not attempt to compare this wild district in its ancient times with that of Italy, but there are many descriptions in that interesting work by George Dennis, "The Cities and Cemeteries of Etruria," which will help us to understand that desolation at present may not point to desolation in the past, although the condition of the land may point to its continuance in the future. Speaking of the ground around "the spot which bore the walls, the temples, the palaces of ancient Tarquinii," he says, "It is a wild and dreary scene; not a tree on either height, or in the vale between (the city and the necropolis), wide sweeps of bare country on either hand, . . . and the Mediterranean the only cheerful feature in the landscape gleaming on the horizon" (vol. i. p. 302). The changes which may come on a country by neglect are numerous. The destruction of trees is known to cause violent floods and excessive droughts, as well as that uncivilised condition which springs from want of fuel. On the hills of Scotland where trees are absent either from neglect of man or by a law of nature, peat has often taken their place, and the removal of peat without giving those conditions which will cause it to grow again will produce results exactly like those caused by the reckless cutting of timber. The effect of the latter is most strikingly illustrated by Antonio Gallenga in his small but interesting volume on Piedmont (not his longer history). For these reasons I do not suppose that a population of some importance never lived in the valley of the Dee, and I am more inclined to compare great things with very small, and to think of another observation by Dennis on the necropolis of Tarquinii, "the whole surface of which is rugged with tumuli, or what have been such, but are now shapeless mounds of earth overgrown, and giving to the hill a strange pimply appearance." Those who seek to see if I am accurate must remember my expression *very small*.

When thinking of these things I received a letter from the Rev. John G. Michie of Dinnet, which strongly confirmed my first impressions as to the heaps being sepulchral remains. He says: "On the estate of Durris there are, or rather there were, many stone circles. The valley of the Sheeoch Burn was at one time studded with them, but much of the ground on which they stood has now been brought under the plough, and all traces

of them have been obliterated. There are, or at least there were, some ten years ago when I last saw them."

I will now give a short account of the circles seen in the district, promising that I am extremely sorry to give little more than a catalogue, and feeling that more careful study might bring out more peculiarities. If it is asked, What is the use of my list? I may say that my chief object has been to see if anything in this East of Scotland connects itself with parts of the Continent so as to indicate the place from which emigrations came over our eastern shores, a point to which I have several times called attention.

1. The stone circle on Rees o' Kleen is nearly perfect; the lying stone is to be seen at the south, and a standing stone close to each end. The diameter of the circle is 14 yards. There are five stones standing in their places, one lying, one fallen or knocked down, and a piece blasted off—making seven; one place is empty. The lying stone is a little east of South; it is 3 yards long. Description by Dr Brown:—

"Raes of Clune circle, nine stones; 50 feet one diameter, 55 another.

No.	1.	...	...	Height.		...	...	Girth.
				5 ft.	0 in.			10 ft. 5 in.
2.	...	...	...	4	6	...	...	9 0
3.	...	...	...	9	0	...	...	(lying stone)
4.	...	...	...	5	8	...	...	10 0
5.	...	...	...	6	10	...	...	6 0
6.	...	...	...	5	4	...	...	8 0
7.	...	...	...	5	0	...	...	8 8
8.	...	...	...	6	0	...	...	4 6

The ninth stone is in a broken state. The large stone is south. The distances are—25, 23, 22, and 25 feet. No. 3 is the large or prostrate stone. The length is 9 feet, its breadth 3·2 and 3·2 on each side. All the stones have a flat side outwards."

I send a photograph, but it is not very telling.

The name "Rees o' Kleen" is best described by a letter from the Rev. John G. Michie of Dinnet, who says: "The word *Ree* means a booth or

enclosure for cattle, and as these stone circles suggested the idea of enclosures for this purpose, they were frequently called *Rees*, or *Raes*. *Rae-dykes* is a common term bestowed upon them in Aberdeenshire. Although I do not know the *Rees o' Kleen*, I think you must be right in identifying *Kleen* as a form of *Cluny*. It is just the transformation of the Celtic word that was likely to have taken place in Aberdeenshire. Nearly every Celtic name of a locality is pictorial. *Clune* is (Celtic) the knee or bend resembling the human knee in the outline of the district; *oo* or *u* is in Aberdeenshire and other parts connected with *ee*, i.e., *boots* is *beets*, *foots* is *feels*, and so forth, therefore *Clune* is *Kleen*. *Cluny* is a common highland term, and always descriptive of this feature. The *Rees o' Kleen* would, therefore, mean the stone circle at the knee or bend of *Strath*, or other reach of country. *Cluain* is generally called the origin of *Cluny*, but *glun*, the knee, is closer."

In Joyce's "Irish Names of Places," 2d edition, p. 223, we have "Cluain (*Cloon*) often translated *pratun* by Latin writers, and for want of a better term it is usually translated *lawn* or *meadow*. Its exact meaning, however, is a fertile piece of land or a green arable spot, surrounded, or nearly surrounded, by bog or marsh, or by a bog or marsh on one side and water on the other. The word forms a part of a vast number of names in all parts of Ireland; many of the religious establishments derived their names from it, and this has led some writers into the erroneous belief that the word originally meant a place of religious retirement. But it is certain that in its primitive signification it had no reference to religion; and its frequent occurrence in our ecclesiastical names is sufficiently explained by the well-known custom of the early Irish saints to select lonely and retired places for their own habitations as well as for their religious establishments." The custom was not confined to Irish saints, and the word *Cluny* is found in other Celtic countries—Scotland and France for example.

2. *Garrol*.—On *Garrol* farm, in the corner of a fir wood, and near the main road, at the highest point as it looks towards *Strahan*, is a stone circle of about 60 feet internal diameter. It is difficult to take the diameter. It was got only by stepping, and I prefer the number given by Dr Brown. The

highest stone is 5 feet. There are nine standing stones and one lying stone. The latter is very large and irregular, and is placed, I think, a little east of South, a standing stone being at each end. There are indications of a small inner circle, but the centre has been disturbed and nothing definite is left. The main circle is bold and pretty complete.

The description by Dr Brown is as follows :—

“Garrol circle ‘The nine stones.’ One diameter is 56 feet, another is 48 feet.

No.	1.	...	...	Height.			Girth.		
				6 ft.	6 in.	...	10 ft.	0 in.	...
2.	...	...	...	3	10	...	9	0	...
3.	...	...	...	4	8	...	8	6	...
4.	...	...	...	4	10	...	9	0	...
5.	...	...	...	4	3	...	8	6	...
6.	...	...	...	3	4	...	6	0	...
7.	...	...	...	3	2	...	8	0	...
8.	...	...	...	5	0	...	6	3	...
9.	...	...	...	4	2	...	8	0	...

The distances of the stones from each other are in feet—41, 13, 14, 17, 23, 13, 19; in all 145 feet.”

The photograph of the “lying stone,” with a “standing stone” at each end, shows very well the usual position and character of this characteristic of the eastern Scottish circles.

3. Going down the valley westerly we come to Esslie farm, South. In the open plain, and in the midst of a field, is a compound circle of a remarkable character. It is slightly raised above the average of the ground, that is, the base appears as if raised a couple of feet. It is about 300 feet west from the public road which here turns northwards.

The circle most prominent is the outer one of three, the smallest being much dilapidated, and separate from the other, *i.e.*, not concentric. There is a trace of two lines of small stones coming from these two smaller circles and leading to each end of the lying stone, which is at the south. Outside the complete circle there is evidence of a fourth from one standing stone remaining.

These two separate internal circles are peculiar. The whole of the eastern one remains and about half of the western one. The stones are scarcely a foot above the ground, and were almost concealed by the long grass. The main circle is 27 yards across, or 80 feet, unless we suppose that 27 yards being the cube of three was a preferable number. Dr Young and I opened the ground of the smaller circles, that to the east and the most complete. On going down about 2 feet a hard "pan" was found 4 or 5 inches thick. (This thickness I give from memory.) This "pan" is very general in the district. A space of 7 or 8 feet in diameter was laid bare with more or less care, and on the outer part there were found certain black marks on the hard ground, and along with them small pieces of bone. The dark marks, in some places quite black, extended so as to be the length of a not tall human being in three cases; a fourth was uncertain. There seem to have been three or four bodies laid so as to form a circle, within which were no black marks or bones. One of the men who were digging tried the centre with his pickaxe, and said that it had been opened; there was no hard pan, and he marked out a place, feeling his way with the pickaxe, and found a softened part about 6 feet long. This space was opened without difficulty with the spade alone; the observation had been correct. After digging down $2\frac{1}{2}$ feet a stone kist was found, if we may call it one, built of common boulder stones, little more than half a foot, *i.e.*, from 8 to 10 inches in diameter. It was a very rude grave considering the elaborate character of the circles, and the imposing appearance that must have been given to it by the surrounding dead. In the grave were found black marks and pieces of bone, but no more.

This style of burial is not common, and I do not know that it was ever found in Scotland before. It seems to be another evidence of that influence in the East of Scotland, not to say more at present, to which I have more than once called attention, and which is necessary to explain some of the peculiarities of building and sculpture which are too many to be put down as native inventions.

The account sent me by Dr Brown is as follows :—

"At Esslie, on the estate of Durris, there is a circle consisting of about

ten stones; one diameter is 78 feet, another diameter is 74. There is an inner circle, consisting of about twelve stones. Its diameter is 20·7.

No.			Height.			Girth.		
			2 ft.	6 in.		3 ft.	11 in.	
1.	...	...	4	0	...	8	7	
2.	...	...	2	8	...	10	0	
3.	...	...	3	9	...	2	1	
4.	...	...	4	7	...	2	6	
5.	...	...	9	2	...	9	7	
6.	...	...	4	6	...	9	0	
7.	...	...	4	8	...	6	9	
8.	...	...	3	4	...	5	9	
9.	...	...	4	3	...	6	0	

The distances of the stones from each other are in feet—48, 37, 20, 11, 22, 25, 31, 27; in all 221. On the south is the large flat stone. I made these measurements in 1868. In 1872 I had a visit from Mr George Carfrae, a promising young surveyor, and I asked him to measure the stones for himself. I transfer his report to these pages. It differs from mine, and is perhaps more accurate."

The drawing is here, but it is not clearly seen which are standing up. Mr Carfrae has given only the main circle and not the centre ones. Dr Brown has mentioned only one centre one.

One cannot help feeling that somebody very important was buried in this cairn, and by persons with habits somewhat advanced on those common to the region, although not dissociated from them.

4. On Mulloch West, north of Esslie, not far from the last but on higher ground, where the road begins to turn eastward, there is another circle seen from the road, and about the breadth of an average field from it. It consists of six standing stones and a lying one, almost exactly at the South; one standing stone being at each end of the lying one as in the others. This circle is 48 feet in diameter. In the centre is one made of smaller stones. This was opened to the depth of from 3 to 4 feet, and several large and flattish stones were found very irregularly placed; and

apparently the remains of some structure broken and tossed into the hole which had been formed in opening it. It had been probably a large stone cist, but if so, it was different from that at South Esslie, which was made of small boulders. The MSS. quoted gives—

“Mulloch circle, six stones, 43 feet in one diameter, 37 in another.

No.	1.	...	...	Height.		...	...	Girth.	
				3 ft.	9 in.			9 ft.	2 in.
2.	...	...	...	4	0	...	...	7	0
3.	...	...	...	4	0	...	...	7	3
4.	...	...	...	3	0	...	...	4	7
5.	...	...	...	3	8	...	...	8	0
6.	...	...	...	4	6	...	...	7	3

The distances of the stones from each other are in feet—23, 13, 27, 21, 16, 17; in all 117 feet.”

5. At Cairnfauld is another circle, 24 yards in diameter; only five stones remain; two places at least are empty. The lying stone may have been removed, or it may be hid in a mass of stones which are heaped on the wall near and interfere with this circle. There was no digging undertaken, but I show a photograph which, however, gives an exaggerated idea of distances. Dr Brown says:—

“Cairnfauld circle, five stones, 73 feet diameter from north-west to south-east.

No.	1.	...	...	Height.		...	...	Girth.	
				4 ft.	9 in.			8 ft.	6 in.
2.	...	...	...	4	3	...	...	7	10
3.	...	...	...	3	10	...	...	7	8
4.	...	...	...	5	9	...	...	8	10
5.	...	...	...	6	10	...	...	7	7

The distances of the stones from each other are in feet—25, 56, 52, 50, 25; in all 208 feet.”

6. East Mulloch. 100 yards west of the farmhouse is a circle or space, evidently the remains of a stone circle. Only two stones are unbroken and in their places, but there is a circle of broken pieces very clear; pro-

bably it was a circle of small stones broken down, as they stood in the way. It was about 36 feet in diameter.

7. To quote again Dr Brown :—"On the Estate of Durris there is a farm called 'Standing Stones.' The name surely implies that the stones were more conspicuous than others. They were all removed in the trenching operations of the late Mr Mactier." It is at least a satisfaction to know their historic end. I am sorry that my paper is little more than a small catalogue of circles. I had hoped to find something to connect them either with some age or, better, with some year. I strongly imagine that circle-making and cairn-building ran far down towards our times; and I think there is room for an illustrative if not decisive paper on this subject, but I do not undertake it.

8. When staying at Durris last September I heard of other stone circles at the east of Kincardineshire, and I paid two of them a few minutes' visit. They are certainly worth more attention, but I was not prepared for any full examination, and went only to find the places as a first visit, whilst Mr John Young drove me to the Stonehaven railway station, a rather round-about way through the parish of Banchory-Devenick. In the south-west of that there is a farm called Auchorthies,¹ and behind the house is one of the most interesting and elaborate of stone circles. It is 23 yards in diameter and somewhat raised. There may have been a square building about it made in later times. There are twelve stones, the highest about 7 feet out of the ground. The lying stones south from 9 to 10 feet long. An inner second circle has a diameter of 16 yards and is irregular. The stones are small, and touch each other. There is a third circle within these, and about 4 yards in diameter, made of stones about 2 feet high, flattish and touching each other. It is called a circle but is not necessarily quite round. There seems to have been a good deal of investigation about this place; the inner circles might show themselves to resemble the one at Esslie, which had the dead around the principal grave. The

¹ I do not recognise this circle in former descriptions of a circle at the place of the same name in Banchory-Devenick, but the name exists also in Aberdeenshire, and perhaps elsewhere.

similarity, however, is chiefly in the number of circles. Perhaps the quotations to follow may refer to it. In outward appearance this circle is both interesting and imposing, and is an ornament to the place. I was sorry to be in a hurry for the train south.

9. On the same farm in a field adjoining are the remains of another circle, which when more complete must have been still more imposing. It has been sadly broken down, and uselessly. It is a good deal overgrown with long grass. The diameter is 27 yards (we again come to 27). Only four stones are standing, one is 9 feet high and 6 feet broad, another is 9 feet high and about 7 broad above ground; both are thick and strong. Some stones were lying down. The striking appearance from a distance arises partly from its position, but also from the size of the stones, which are broader than any that I have seen in Scotland. They do not come near some at Avebury in size, although they remind one of that place from the shape.

Little as I have done here I think it well to speak even of my hasty visit. We want a book of the Archæological Remains of Scotland, and those I now add to the list seem to have been strangely neglected, although I do not say that they have never been alluded to. I ought to add, however, the following from the "Statistical Account" (1842), and quoted by Dr Brown:—"There are on the property of Auchloss, belonging to Mr Boswell of Kingcaussie, two of these circles of stone, commonly called Druidical temples, very perfect. One of them is composed of a double row of stones, in the centre of which a stone coffin was discovered many years ago, but containing neither urn nor bones; perhaps the circle of the dead may yet be found." This perhaps may refer to Auchorthies.¹

¹ There is another farm to the south-west of Auchorthies called Auchollies. It is not possible to obtain the original meaning, and in seeking etymologies it is better to restrict oneself to that which is quite clear. A Celtic authority has given me as translation the following for Auchorthies:—"The field of scarcity," which is possible enough. This does not include the *s*, which if it stood for *uisge*, water, might mean the "field of the scarcity burn." (*Gorta* is scarcity.) Garrol, a rough flood or brook—very common. Eslic might be a rapid flood. Cluny is common, and means a meadow. Mullach is simply a hill.

In the "Statistical Account" (1792) there is under Banchory-Devenick the following:—"There are several very large cairns both on the north side of the river and towards the coast, and in one place in particular a number of small ones are scattered over the moor near them." This resembles the description I gave of the "Rees o' Kleen," and also of the banks of the Sheeoch at Garrol. It seems to mark a habit of the district.

Again, "There is also in the south side of the parish a Druidical temple that is worthy of notice. It is situated on an eminence about a mile and a half from the coast, and was still within these few years remarkably perfect. It consisted of three circles of stones within each other. The outer circle, which was about 45 feet in diameter, consisted of twelve large stones placed on end. The inner circles were composed of smaller stones placed in the same manner, and between the two outermost on the east side there was a stone chest sunk in the earth, about 3 feet long and $1\frac{1}{2}$ wide, which having been accidentally uncovered by a country man, he found an urn, which disclosed nothing but a little dust or ashes. A little farther down the hill towards the south-east there is another erection of the same kind. It consists of one circle of pretty largestones" ("Statistical Account," 1792, vol. iv. p. 450). The description of the positions does not suit well those at Auchorthies; the first is certainly on a rising ground. I would not say that it was on a hill, and the second is not down a hill to south-east. The distance from the coast is about 2 miles, or a little more, and so far agrees pretty well.

I shall now add a little from the MSS. so often quoted, giving an account of circles which I have not visited.

10. "On the Estate of Inchmarlo, 90 feet from the wall, in the plantation on the south side of the public road, and 115 yards from the approach gate to Inchmarlo cottage, there is one stone. (Inchmarlo is in Banchory Ternan.) Its height on the north side is $6\frac{1}{2}$ feet, and on the south side 8 feet. The breadth on the north side is nearly 4 feet, and on the south about the same. The thickness on the east side is 2 feet 7 inches, and on the west side 5. It is commonly known as "The Druid's Stone." The late Sheriff Douglass, who was born at Inchmarlo, told

me of the existence of other stones near this one, and I think he had seen them."

11. "In the parish of Midmar, at the farm of Sunhoney, on the estate of Mr Gordon of Cluny, there is a stone circle. There are twelve stones, one of them flat.

No.	1.	...	...	Height.		...	...	Girth.	
				7	ft. 8 in.			12	ft. 0 in.
2.	...	...	...	7	0	...	...	8	0
3.	...	...	...	7	2	...	...	8	1
4.	...	...	...	4	5	...	...	5	0
5.	...	...	...	5	3	...	...	7	0
6.	...	...	...	5	0	...	...	7	8
7.	...	...	...	5	0	...	...	7	8
8.	...	...	...	5	0	...	...	7	10
9.	...	...	...	6	0	...	...	8	11
10.	...	...	...	6	2	...	...	8	5
11.	...	...	...	7	0	...	...	9	11

12. "The large flat stone to the south occupies all the spaces between Nos. 1 and 2. Its length is 16.5 feet. Breadth of upper surface and across the middle of the stone 4 feet; breadth at the ends 2 feet.

"The distances of the stones from each other are in feet—22, 19, 24, 19, 19, 22, 22, 22. All the upright stones are of red granite. The large flat stone is of very grey granite. Some excavations were made here some years ago (in 1868)." (All this information was given me by Dr G. W. Hutchison.)

13. "At Glassel, half a mile above the station, in a plantation called Ordie Gordin, there are six stones; the diameter of the circle is 13 feet 6 inches.

No.	1.	...	...	Height.		...	...	Girth.	
				3	ft. 6 in.			5	ft. 4 in.
2.	...	...	...	3	0	...	...	6	0
3.	...	...	...	3	3	...	...	5	3
4.	...	...	...	3	4	...	...	5	9
5.	...	...	...	3	0	...	...	4	9
6.	...	...	...	3	0	...	...	7	0

The distances of the stones from each other are 8, 8, 9, 8, 9, 8. "This information was given me by Mr James Dawson in 1869."

Dr Brown says : "When at Castle Forbes in October 1868, I examined the circle there. Mr Rait, the ground officer, afterwards sent me the drawing and measurements, which I send along with this, but which I wish to be returned to me." I returned the drawing, which was that of a lying stone.

I have still some sadness in ending without drawing conclusions ; but it may happen some day that a reader of this, when wandering over some European shores, most probably to the north, may see characteristics such as I have described, and may be led to a knowledge of a point from which men who have much influenced Scotland have certainly come ; people different from the Western Celts, and, so far as we know, different from Scandinavians who have landed elsewhere in many parts of the country.

MONDAY, 14th June 1880.

PROFESSOR DUNS, D.D., Vice-President, in the Chair.

A Ballot having been taken, the following Gentlemen were duly elected Fellows :—

JAMES BARRON, Esq., Editor of "Inverness Courier."
HORATIUS BONAR, Esq., W.S., 15 Hill Street, Edinburgh.
ROBERT BRYDEN, Esq., Waltham Lodge, Murrayfield.
JOHN CRAN, Esq., Kirkton, Inverness.
JAMES LUMSDEN, Esq. of Arden, Dumbartonshire.
JAMES MARSHALL, Esq., Carlston, Glasgow.
MASKELL WILLIAM PEACE, Esq., Ashfield, Wigan.
ROBERT R. SIMPSON, Esq., W.S., 8 Bruntsfield Crescent.
JOHN MUIR WOOD, Esq., 22 Bellhaven Terrace, Glasgow.

The following Donations to the Museum and Library were laid on the table, and thanks voted to the Donors :—

(1.) By Dr H. FAULDS, Tsukiji Hospital, Tokio, Japan.

Celt of greenstone, polished, $3\frac{1}{2}$ inches in length, $1\frac{1}{2}$ inches in breadth across the cutting face, tapering to $\frac{3}{4}$ inch at the butt, edges flattened, the thickness irregular, but nowhere more than $\frac{3}{8}$ of an inch.

Celt of diorite, polished, $3\frac{1}{2}$ inches in length, $1\frac{3}{4}$ inches in width across the cutting face, tapering to an inch at the butt, edges polished, thickness in centre $\frac{1}{2}$ an inch.

Six Arrow-Heads of obsidian, triangular, stemless, and hollowed at the base. The length varies from $\frac{1}{4}$ to $\frac{3}{4}$ of an inch, and the width at the base from $\frac{3}{8}$ to $\frac{5}{8}$ of an inch. They are well made, and some are slightly serrated along the edge.

Six Arrow-Heads of chert, slightly larger in size, more roughly made, and varying in form from a leaf-shape to a triangular form, with hollowed base.

One Arrow-Head of obsidian, with barbs and stem $\frac{3}{4}$ of an inch in length, and well made.

Three Borers of chert, $1\frac{1}{4}$ inch and 1 inch in length.

Four irregularly-shaped Implements of obsidian, not unlike arrow-heads, but with long points, and barbs of equal thickness with the points. The most regularly-shaped has some resemblance to a prick spur. They are of small size, about $\frac{3}{4}$ of an inch long and $\frac{3}{8}$ inch wide.

All found in the neighbourhood of Tokio, Japan.

Two Vessels of pottery-ware, which are thus alluded to in the note accompanying the donation addressed to Mr Anderson :—

TSUKIJI HOSPITAL, TOKIO,

JAPAN, *January 22, 1880.*

"SIR,—I beg to avail myself of Professor Dickson's return to Scotland to forward to the Scottish Society of Antiquaries a few objects from Japan. I send two specimens of 19th century ware in use even in the metropolis, which curiously illustrate the co-existence of the most primitive types of pottery side by side with the most advanced and exquisitely-finished. These contrasts exist naturally to-day even in the same household. I send

also a copy of the 'Japan Mail' with note of remarks on survival of primitive types of pottery and finger-marks, a subject which I am now working out."

These remarks occur in a report of a meeting of the Asiatic Society of Japan, held on 11th November 1879, at which Dr Faulds, referring to the pottery of the shell-heaps, said—

"The types hitherto found in these shell-heaps did not seem to be separated by any one well-marked character from contemporary pottery of a low grade. Indeed the shell-heaps scattered along the old and recent coasts of Yedo Bay presented in their fragments of pottery a series of modifications leading up to recent times, and some of the heaps might be seen in actual process of accumulation. People not accustomed to such inquiries, naturally perhaps, tended at first to exaggerate a little the antiquity of their discoveries, and hence cautious criticism was useful. What was the greatest antiquity which could be allowed to them? Looking at all the facts, he had ventured publicly to assign 600 years as the probable antiquity of the Omori heap, and was glad now to announce that Mr Ninagawa, of the Tokio Museum, and the principal authority on the subject of Japanese pottery, decides that the remains of earthenware cannot be older than about 1000 years, for at that time, it was known that the methods of working which had been adopted were first introduced into Japan. A definite rise of the beach had been historically recorded, and there were several facts to show that even in the present century a very noticeable elevation had taken place. He begged leave to show some interesting but unpretentious specimens of the 'prehistoric' pottery of this nineteenth century. The first is a tea-pot of unglazed earthenware. It has been entirely moulded by the fingers, and has in many places been indented all over with a rough cloth pattern, its ornamentation consists of the simplest and most childlike whirls and scratches, while its handle is stuck on in the most primitive fashion. It is in quite common use in Tokio, the capital of Japan, at the present day. The next article is still more strikingly 'prehistoric.' It cannot have been turned on the wheel, but is an imperfect cone made of a sheet of rolled-out clay folded on itself like a grocer's poke. Its neck has been narrowed and then the rim reverted by the pressure of fingers, the markings of which are retained. These vessels are used for keeping warm the *sake* of the Japanese night policemen, the cone being thrust into the hot ashes of the brazier. Such examples ought to

suggest more caution in making deductions than had sometimes been displayed in our day."

(2.) By ED. S. MORSE, Professor of Zoology, University of Tokio, the Author.

Memoirs of the Science Department, University of Tokio. Vol. I., Part I. The Shell Mounds of Omori. Illustrated. 4to. 1879.

(3.) By THOMAS W. U. ROBINSON, Esq., F.S.A., Houghton-le-Spring.

Twenty Arrow and Spear Heads from the United States of America, viz. :—

(1) Of quartz, $1\frac{1}{8}$ inch in length, oval shaped, with short thick neck ; (2) of chert, 2 inches long, with stem and slight barbs ; (3) of chert, $2\frac{1}{2}$ inches long, triangular, unbarbed ; (4) of chert, $3\frac{1}{4}$ inches long, triangular, unbarbed ; and with thick stem ; (5) of chert, 3 inches long, triangular, slightly barbed, and with flattened stem,—all from Savannah River, Georgia ; (6) of chert, $1\frac{7}{8}$ inches in length, triangular, with curved edges, barbs, and broad flat stem ; (7) of chert, $2\frac{1}{2}$ inches in length, triangular, unbarbed, thick flat stem ; (8) of flint, 3 inches long, triangular, unbarbed, thick, flat, and tapering stem ; (9) of jasper, $3\frac{1}{4}$ inches long, triangular, unbarbed ; thick flat stem ; (10) of chert, $3\frac{3}{4}$ inches long, triangular, unbarbed ; (11) of chert, $3\frac{3}{4}$ inches long, triangular, unbarbed ; (12) of quartz, $1\frac{1}{4}$ inch long, oval, unbarbed, and stemless,—all from Flint River, Georgia ; (13) of quartz, $1\frac{1}{4}$ inch long, oval-shaped, stemless ; (14) of quartz, $1\frac{1}{2}$ inch long, triangular, slight barbs, and wide flat stem,—from Georgia ; (15) of quartz, 2 inches long, thick, narrow, and triangular, with thick rounded stem ; (16) of quartz, $1\frac{3}{4}$ inch long, oval, with thick stem ; (17) of quartz, 2 inches long, triangular, stemless,—all from the Chickahominy ; (18) of chert, $2\frac{1}{2}$ inches long, triangular, with barbs and wide flattened stem, from Bedford, Indiana ; (19) of obsidian, $2\frac{1}{4}$ inches long, narrow, triangular, without barbs, and with long slightly flattened stem, from Charleston, Western Virginia ; (20) of obsidian, $2\frac{1}{4}$ inches long, triangular, with slight barbs and flattened stem, from Brown County, Oregon.

Six Hollow Scrapers of flint from County Antrim, Ireland, varying in size from 1 inch to 2 inches in length.

(4.) By Provost DAWSON, F.S.A. Scot., Linlithgow.

Celt of greenstone, polished, 5 inches long, 2 inches across the cutting face, thick and oval in section at the centre, tapering slightly to the butt, which is cut nearly square off, showing an oval of 1 inch by $\frac{3}{4}$ inch. This specimen is believed to have been found in the neighbourhood of Linlithgow.

(5.) By ALEXANDER LAING, LL.D., F.S.A. Scot.

Floor-tile $9\frac{1}{2}$ inches square, the surface covered with a yellow glaze, and ornamented with rudely scratched lines, representing a square with its diagonals, found at Lindores Abbey.

(6.) By Professor DUNS, D.D., Vice-President.

Bronze Reliquary found in the River Shannon. (See the preceding communication by Professor Duns.)

(7.) By JAMES DALGARNO, Esq., Corr. Mem. S.A. Scot., Slains.

Lozenge-shaped Arrow-Head of yellow flint, finely made, 2 inches in length, found near the Meikle Loch, Slains.

(8.) By Mr JOHN BURNET, through Rev. JAMES GAMMACK, Corr. Mem. S.A. Scot., Drumlithie.

Two Bronze Swords found in digging a drain on the farm of Jacksbank, near Fordoun. (See the subsequent communication by Mr Gammack.)

(9.) By GEORGE CUNNINGHAM, Esq., Advocate, F.S.A. Scot.

Pocket tinder-box of horn, shaped like a snuff-horn, as used by the fishermen of Lybster in Caithness, with its flint and steel.

(10.) By ALLAN MATHEWSON, Esq., Corr. Mem. S.A. Scot.

Portion of a Sculptured Stone, having part of the "elephant" symbol on the one side and on the other part of a finely-executed pattern of divergent spirals, found in making a roadway at Strathmartine.

(11.) By JOHN STURROCK, Esq., F.S.A. Scot., Dundee.

Stone of red sandstone, 13 inches by 10 inches, with five hollows in its upper surface, from an underground structure at Tealing.

Anvil-stone, being a water-worn block of quartzite, 10 x 8 x 6 inches, marked all over its flat surfaces with pits of different shapes and sizes, some being as much as 3 inches long, 2 inches wide, and an inch in depth.

Hammer-stone, being a block of quartzite of precisely the same character, but smaller, measuring only 7 inches in length, 3 inches in breadth, and 2 inches in thickness. Both from Skelmuir, Aberdeenshire.

Also a quantity of split and chipped flints from Ellon, Aberdeenshire.

(12.) By ARTHUR D. MORICE, Esq., Advocate, Aberdeen, F.S.A. Scot.

Collection of Flint Flakes and Chips, and one Arrow-Head of flint from the mountains about two miles east of Helouan on the Nile. The arrow-head is about an inch in length, triangular, having its sides slightly curved, no barbs, and a slightly tapering tang. The flakes are mostly thin and narrow, about 2 to 2½ inches in length, occasionally serrated on one edge.

(13.) By ROBERT MACKAY SMITH, Esq., F.S.A. Scot.

Portable Jewel Casket of steel, 3¼ inches long, 4 inches high, with rounded top, damascened in gold. From the Shandon Collection.

(14.) By FRANCIS JONES, Esq., F.S.A. Scot.

Declaration to Lord Burghley, Great Treasurer, of sums paid into Exchequer from Michaelmas to Easter 1594. Manuscript, folio, 20 pp.

(15.) By ALEXANDER MACKENZIE, F.S.A. Scot., Editor of the "Celtic Magazine," the Author.

History of the Clan Mackenzie, with Genealogies of the principal Families. 8vo. Inverness, 1879.

The Prophecies of the Brahan Seer. Second Edition. 8vo. Inverness, 1878.

Historical Tales and Legends of the Highlands. 12mo. Inverness, 1878.

- (16.) By Professor OLAF RYGH, Corr. Mem. S.A. Scot., Christiania, the Author.

Norske Oldsager. Forste Hefte. 4to. Christiania, 1880.

- (17.) By Sir HENRY DRYDEN, Bart., Canons Ashby, Hon. Mem. S.A. Scot.

Collection of Plans to be added to the portfolios in the Society's Library, viz, Underground House at Skaill; West Broch, Burray; Brochs at Quoyness, Lambhead, Backaskail, Manse of Harray, Wasshow, and Breckness, Orkney; Yarhouse, Caithness, Maeshow, Orkney; Chapel with Gravestones, Iona; Cists at Bookan and Stronsay; Chapel at St Germain-sur-Vienne, Charente; and a number of Sheets of Measurements and Drawings.

There were also exhibited :—

- (1.) By Dr PATERSON, Bridge of Allan, Corr. Mem. S.A. Scot.

Stone Cup with handle, $3\frac{1}{4}$ inches wide, $1\frac{1}{2}$ inch deep, found at Lintrathen.

Quern of small size, hollow, and measuring 10 inches in diameter, found at Tyndrum.

Clasp or mounting of brass for a gipsire or girdle purse, found at Powderhall, Edinburgh.

- (2.) Purchased for the Museum, through Rev. GEORGE WILSON, Corr. Mem. S.A. Scot.

Collection of Flint Arrow-Heads and Implements from Wigtownshire, comprising 7 stone axes, 3 whetstones, 1 polisher, 4 perforated stones, 48 arrow-heads of flint, leaf and lozenge-shaped; 30 arrow-heads of flint, triangular and barbed; 14 knives, 6 saws, 4 drills of flint, and a large number of scrapers and flakes.

The following Communications were read :—

I.

NOTICE OF TWO BRONZE SWORDS FOUND IN KINCARDINE-SHIRE. BY REV. JAMES GAMMACK, CORR. MEM. S.A. SCOT.

As a drain was being dug by a workman in the lower part of the farm of Jacksbank, in the estate of Lawgavin, parish of Glenbervie, on Friday, 30th April 1880, two bronze leaf-shaped swords were found in close proximity lying across the bottom of the drain, which had a direction from north to south. They were lying between the vegetable or mossy matter and a pearly bed of sand, and were 3 feet from the surface. Beside or in any way near them there appeared to be no other remains of antiquity. The sword which was first seen was broken into three pieces in the course of removal, and one of the pieces not sought for, or at least found, but the fractured surface of the contiguous piece shows that till then it was entire. The second sword was removed with care, and presents the smooth, even surface of the well-known leaf-shaped sword, of which several specimens are already in the Museum. Its whole length is $25\frac{1}{8}$ inches, including the flat handle-plate, which measures about 4 inches; the breadth of the leaf is $1\frac{5}{8}$ inch, and of the neck at narrowest $1\frac{1}{8}$ inch. There was no appearance of wood, bone, or horn attached to the handle, but the six pins, about $\frac{1}{2}$ inch long, were standing out on either side, though only to break off at once when touched. The sword itself was considerably bent when being forcibly removed from its bed, and has since been partially straightened. The blade, which is two edged and keenly pointed, is covered with a smooth green rust or oxidising of considerable thickness, but the scales had prevented the formation of this on the handle. The weight of the sword is 1lb. $4\frac{1}{4}$ oz. The sword which was broken was smaller than the other—the two fragments together measure $17\frac{6}{8}$ inches, and the lost point perhaps $1\frac{1}{2}$ inch more, or in all about $19\frac{1}{4}$ inches. The



Bronze
Sword ($25\frac{1}{8}$
in. long).

breadth of the blade is $1\frac{1}{2}$ and $1\frac{1}{8}$ inch, and the handle-plate had only four holes, of which two were in a line on the centre length and two on either side the shoulder. But the edges of the fragments are considerably destroyed by the effort to remove the unknown object in the drain, and partly by subsequent freedom in handling. The fractured ends show a good clear metal which was not easily broken. The entire sword and the two pieces have been presented to the National Museum of Antiquities, Royal Institution, Edinburgh, by Mr John Burnet, farmer, Jacksbank. It may be worthy of note, as at least suggestive of thought, though without attempting to define the coincidence or the sequence of the Stone and Bronze Ages in Scotland, that the spot where the swords were found is within half a mile of the place where, on the neighbouring declivity on the farm of Cleugh-head, the cist was found in February 1878, containing calcined bones, and the perforated stone hammer, which was immediately thereafter sent to the Museum.

On reading the above to an old man, a native of Drumlithie, I received the following note at once :—"Then that was beside the Muir of Germany (also on the land of Lawgavin), where a battle is said to have been fought." But my informant could give me no farther account of the tradition as to *how* the Muir of Germany received its name, or *when* the battle is said to have been fought.

III.

PRELIMINARY NOTE ON THE DISCOVERY OF A BONE CAVE AT THE
ISLAND OF COLONSAY. By SYMINGTON GRIEVE.

It is not intended in the present paper to do anything more than bring under the notice of the Fellows of the Society of Antiquaries of Scotland the discovery by Mr Daniel Fowler Howorth of Ashton-under-Lyne, and the writer, of a great bone cave in the island of Colonsay.

During a short stay there last summer, we heard of a cave that contained a well of icy cold water, and were also told that there were numerous other caves, so we arranged to visit them. Our excursion took place on the 14th of last July, and after much difficulty we found ourselves, with the aid of a guide, at the entrance of what we shall in future call the Crystal Spring Cavern.¹

To reach this point we had followed a rough path which led us through a cutting in a low bluff that stretched northwards, forming the west side of a small indentation of the sea. The path descended for a few feet, and we were near the mouth of what seemed at first an unimportant cave.

A look around showed that we were standing on an immense heap of debris which had at some period been part of the surrounding cliff, and which had probably formed the roof of a gigantic portico to the entrances of three caves; the centre one being either entirely destroyed by the fall, or possibly only its entrance filled up, while the other two were left with small openings, much of the debris having fallen into their outer chambers.

The most northerly of these caves is the Crystal Spring Cavern, and the mass of fallen rock at its mouth rises to a height of 40 feet above high-water mark.

The entrance, which is some yards below the level of the top of the fallen material, is situated in the face of a perpendicular cliff which rises above it 24 feet. It is about $19\frac{1}{2}$ feet broad, and faces the east-north-east, so to reach the level of the outer cave floor, which is about 20 feet

¹ It is known on the Island as the New Cave.

above sea-level at high water, we have to descend, for about 30 feet, over masses of fallen rock, which are partly covered with earth, which has probably been deposited by the feet of men and animals either going to or returning from the cave.

We go carefully down the declivity, and within the entrance we find the light begins to be obscure; we therefore light candles and proceed into the depths of the cavern in a west-south-west direction.

As our eyes gradually became accustomed to the darkness, the immensity of the cave loomed out around us, and we found ourselves in a chamber 95½ feet in length, 51 feet in breadth at its broadest point, the heights of the roof ranging from 14 to 15½ feet from the floor at the highest parts, while at other places projections of rock take place which give the roof and walls an irregular appearance.

Wandering about, we saw quantities of stalagmite, and looked carefully for stalactites, but found none worth having, and though we noticed bones lying here and there, we took no particular notice of them until we reached the south-south-west corner of the chamber, where we found the wonderful spring from which we have given the cave its name; and while examining the beautiful cistern of stalagmite in which its waters are contained, my friend Mr Howorth called to me to come and see some bones he had found among the earth and stones of the cave floor. On going to him I observed he had got several bones which certainly had a venerable appearance, so we determined to make further search, and I soon discovered quite a quantity imbedded in stalagmite, which made us feel sure we had come upon a find. As we had no implements except a geological hammer, we could only get a few of the loose bones from the surface, for to have attempted to get any of those from the stalagmite would have broken and perhaps made them useless for identification, so, fearing to destroy them for scientific purposes, we rather left them until we could return with proper tools and win them from the firm embrace of their crystalline matrix.

Proceeding to the inner portion of the north-west side of the chamber, we found the entrance to No. 2. It is about 9 feet in breadth and 7 feet

in height. Entering, we gradually descend in a direction nearly due north until we reach a level of 5 feet below the floor of No. 1. At a short distance further in from this point the cave walls curve towards the west, and the remainder of this apartment is north-north west in its bearings. The whole of the measurements of the depth of No. 2 are taken from the datum line of No. 1 at its point nearest to the centre of the entrance to No. 2. This datum line is a line laid down through the whole length of No. 1 as near its centre as possible.

At a distance of 30 feet from this line we find the chamber widening; and at 60 feet it is nearly 29 feet broad, and 12 feet high, the extreme length being $87\frac{1}{2}$ feet.

For the last 23 feet of this distance the floor gradually rises until it reaches nearly the same level as that of the outer vault. The floor of the lower level of the second chamber is strewn with a large granulated sand, which seems to show it was covered with water until a comparatively recent period. But it is strange that at this point the largest mass of stalagmite yet found in the cave is met with. In appearance it is an undulated slab, varying in thickness from 3 to 18 inches, and is attached to the north wall of the cave, where, close to the rock, it has bones imbedded in its surface. Its crystals seem larger, and it is more transparent and beautiful than any of the other calcareous deposits, which look as if they had been formed amongst thin mud, probably caused by the treading over the wet floor of men and animals that frequented or inhabited the cave.

As bearing out the theory that water covered the floor of this part at some period during the formation of the stalagmite, it is interesting to note that its upper surface projects beyond the lower portion for some inches, and bears traces of having been formed above water during the time the part next the floor was immersed.

At the inner portion of this vault, which, as explained, is of a higher level, we again find deposits of bones and charcoal. We are now standing at the entrance to No. 3 chamber, which is a small opening situated on a level with the floor, 2 feet 1 inch in height, rather less in breadth, and was not supposed to lead any distance into the rock. Our guide explained

that no one has ever been into it and seemed rather astonished when he heard my intention to go. Lying down I examined the entrance, and observed that a few feet into the cavity the floor appeared to rise until it met the roof; but determined to explore the cave to its utmost limits, I pushed through the narrow opening and found myself entering what seemed a low tunnel. The floor was covered with stones rounded by the action of water, varying in size from an orange to a man's head; but further in, it was covered with portions of slaty rock which had fallen from the roof by weathering, much of it being cemented to the floor by stalagmite. This rock is in a sloping vein, which at 15 feet from the entrance had been eroded to a breadth of 11 feet 3 inches, but the height was only 2 feet 10 inches. I crawled along the passage a distance of 36 feet, but then found further progress impossible, as the stalagmite had filled it up until it was less than a foot high. I passed my hand with the lighted candle into the aperture and peered into the gloom, trying to see the limit of the lead, but could not, so I crept back into the wider portion of the tunnel, where, getting out my magnesium, I fixed it in a holder for the purpose, and moved forward to the aperture once more, then lighting the wire held it at arm's length into the opening.

As the burning metal shed forth its brilliant rays it was seen clearly the obstruction was only a few feet in thickness, and that a chamber was beyond. Where the cave may end can only be found out after much toil, but one thing is certain, that if it formed a place of safety and refuge for the cave dwellers, as there is reason to believe, we have ready for exploration one of the most remarkable cave dwellings known in Scotland.

The total length of the chambers and passage as yet explored is 219 feet, and if you add 10 or 12 feet as the distance seen further by the aid of the magnesium, you have a total of about 230 feet.

The latter part of this exploration was carried out last month, when I returned alone to the island provided with proper implements, but to make this note more connected it is written as if the examination had all been at one time.

During my second visit several other caves were explored, one of them

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as extensive as that now described; but as they did not contain bones in any quantity they are not likely to prove at present so interesting.

The deposits of stalagmite in the Crystal Spring Caverns seem somewhat local, and confined to the surface, while the under strata is mostly composed, so far as examined, of bones and charcoal, with large round water-worn stones, which appear to have been cracked by heat; but between the layers there are seams of what we believe to be decomposed rock, now in the form of clay, which has been baked, the result of fires being lighted on it when it formed the floor.

The deepest cutting yet made was near the entrance of No. 1 chamber, and reached a depth of 2 feet 10 inches, revealing the strata to be as follows :—

The first 4 inches from the surface, cave earth, rounded stones, charcoal, and bones mixed. Then a layer of burnt clay 4 inches, below which was a succession of thin layers of charcoal, bones, earth and stones mixed, divided by thin seams of clay for 4 inches, followed again by a deposit of bones, earth, stone, and charcoal for a foot, when another layer of clay about an inch thick is met with, succeeded by 8 inches of earth, bones, and charcoal, beneath which was 1 inch of clay and then rock. The rock which was struck was probably a boulder which had fallen into the cave when the roof of the outer portico fell. But further into the chamber beyond the point where the debris from the outside at present lies, deeper deposits are likely to be found, and the further down they are dug into may prove the richer in antiquarian value.

All cuttings yet made have been carefully noted and the results kept separate, so that if the work of exploration is taken up by some society desiring to shed light on the story of ancient Scotland, the work done may not be lost, but rather will aid them in forming preliminary conclusions, and obtaining truer inferences during future investigations.

The result of search in the cave has been the recovery of a large number of bones, only part of which have as yet been examined, but for what has been done I have to acknowledge my indebtedness to Dr R. H. Traquair, who has most kindly worked at the identification. I would also acknow-

ledge my obligations to Mr Galletley and Mr Gibson of the Museum of Science and Art, who, along with Mr Anderson of your Museum, and Mr Benjamin Peach of the Geological Survey, have aided me much with valuable information.

The animals as yet represented are—

1. The Ox, 34 bones.
2. The Horse, 10 bones.
3. The Sheep (a curious small variety), 6 bones.
4. Fragments of bones of Mammalia not identified, 42.
5. Birds, 3 bones, probably representing three varieties, uncertain.
6. Fish, 5 bones, probably representing three varieties, uncertain.
7. Shellfish—Periwinkle and Limpet Shells, very plentiful.

It is curious to find that most of the ox, horse, and sheep bones belong to young animals, which possibly indicates that the men of these bygone ages were sufficient epicures to know the difference between tough and tender meat. Numerous bones show the marks of human instruments, either in cuts, saw-marks, or indentations, and others from their calcined appearance have evidently been exposed to fire. One striking feature is the fragmentary state in which all marrow bones have been found, giving evidence that the cave dwellers knew the form in which they would give the greatest product when boiled.

The clean appearance of the cuts leads one to conclude they have been done with metal, and though we have not as yet been so fortunate as to get any implements, still we probably have evidence of one, in the large piece of oxidised iron imbedded in the mass of breccia on the table.

The presence of charcoal leads to the inference that wood grew on the island in early times, and in confirmation of this we discovered on the shores of Loch Fada the stumps of large trees *in situ*, evidently the remains of an ancient forest. This is somewhat remarkable, as all the natural wood of Colonsay at present is of dwarf growth, and principally composed of birch, hazel, and oak. The only timber of even moderate size is in the plantations near Kiloran House, and these have been planted in recent times.

From the nature of the rock (talc schist) in which this cave is formed, and the general surroundings, we infer the stalagmite would be of very slow accumulation, but it is desirable that no definite conclusions should be arrived at until there is an opportunity to investigate further.

This paper being merely introductory, it will be necessary to leave till some future time the consideration of

1. The formation of the cave ;
2. Its uses ;
3. Its inhabitants ;

and to illustrate some of these subjects diagrams will be required.

The proprietor of the island has been communicated with, and requested to protect the cave as well as the other antiquarian and ecclesiastical remains on Colonsay and Oronsay, as with increased facilities for reaching the islands they may soon have plenty of visitors, when it is discovered that they have nearly all the interesting features of Staffa and Iona combined,—and in some respects present even greater attractions.

IV.

NOTICE OF THREE CONTRACTS BETWIXT SIR WILLIAM BRUCE OF BALCASKIE, HIS MAJESTY'S SURVEYOR-GENERAL ; SIR WILLIAM SHARP OF STAINIEHILL, HIS MAJESTY'S CASH-KEEPER ; AND ROBERT MYLNE, HIS MAJESTY'S MASTER MASON, FOR THE REPARATION AND BUILDING OF THE PALACE OF HOLYROOD (1672-76) ; WITH RELATIVE LETTERS, ETC., LATELY DISCOVERED IN THE CHARTER-ROOM AT KINROSS HOUSE. By DAVID MARSHALL, F.S.A. Scot., KINROSS.

Some time ago I was employed by Sir Graham Graham Montgomery of Stanhope, Baronet, F.S.A. Scot., to arrange the papers preserved at Kinross House, a noble residence designed and built by the distinguished Scottish architect Sir William Bruce (after his purchase, in 1675, of the estate of Lochleven from William, Earl of Morton, not far from an older

manor place, since demolished, called the New House of Lochleven), between the years 1680 and 1693.

In the course of this rather tedious operation, owing to the variety and dilapidated state of much of the contents of the room, among other original documents illustrative of our national history, reaching back as far as 1511, I had the good fortune to light upon the contracts with Robert Mylne, the King's master mason, for the rebuilding and restoration of Holyrood Palace.

I understand that, about the year 1851, Robert William Mylne, Esq., London, a Fellow of this Society, and a representative of the King's master mason, while making a search in the same muniment room, discovered a volume of accounts of Sir William Bruce, together with sundry warrants for various works, 1671-79, &c., of which I shall give an inventory at the close of this article; but these contracts did not come under his observation.

It may be proper, however, to state that the whole of the documents in question are described, as follow, in an account of "Papers put into a large Trunk marked AB" in Kiross Charter Room, in the year 1766, as appears from an inventory in possession of Sir William Bruce's lineal descendant, Thomas Bruce, Esq. of Arnot.

"3. One Bundle of Contracts and other Papers concerning the building of the Abbey, The Reparation of Dumbarton Castle, The Bass, and other places, while Sir William Bruce was Master of the Works, with an Accompt book kept relative thereto."

"The Accompt book" was soon after its discovery most appropriately deposited by Sir Graham Graham Montgomery—whose family have owned the Lochleven property since 1777—among the public records of Scotland in Her Majesty's General Register House: the date of the presentation being 13th February 1858. The authenticity of its contents is duly vouched for by the signatures of the Lords of the Treasury. The book itself is in the handwriting of James Kennewie¹ "Clerk to the reparations

¹ Mr Kennewie belonged to Culross, where his father, James Kennewie, W.S., and brother, John, were successively town clerks. He entered Sir William Bruce's service as a clerk in the Bill Chamber in 1663, having been previously in the

of his Majesties several Pallaces and Castles in this Kingdom," and embraces the period between 16th January 1674 and 13th March 1679. Originally a thin folio in a parchment binding, it has since it found its way to the Register House been carefully rebound in leather, with additional paper. Unfortunately nothing seems to be known of another older book of accounts, referred to in the charge on the first leaf, and said to have been signed by a quorum of the Lords Commissioners of His Majesty's Treasury, 9th July 1674, and delivered up to Sir William Bruce, and of which he left a just double in the hands of their clerk. Is it probable that both copies have perished? This volume of accounts formed

employment of Sir John Campbell of Glenurchy, and was subsequently chamberlain to Sir William Bruce at Kinross, and his son, 1684-1706, and joint sheriff-depute of that shire, 1683-1689. John Kennewie's daughter Jean married James Sterdman of Kinross Mill, Whinfield, &c., Sheriff-Clerk and Bailie of Kinross. Several of the artificers and others employed about the palace works were afterwards engaged by Sir William in the erection of his own house at Kinross, such as Alexander Eizat, wright, Alexander Eizat, plumber, John Callender of Craigforth, the king's smith, John Van Sant Vort, properly *Jan Van Sant Voort*, carver, Canongate; Isabella Ferner "nail wife" in Path-head, who supplied nails both to Balaskie and Kinross.

[Discharged account John Callender of Craigforth for iron work furnished to the house £518:01:08 Scots, 5 June 1701, in which under date "18 March 1688" are the following charges:—"It. an Iron Gait for your honers chirtre hous dor with Crowkes and others wighting 16 ston 13 lib at 5 lib per ston is 84 lib 05 sh 00. It. a lock for the said dor is 12 lib 00:00. It. payed for cairing it to Leith 0:08:00" (Bruce Papers in Kinross Charter Room). The "Iron Gait" and "lock," with double bolt, are still in use and may last for a few more centuries.

In 1679 Jan Van Sant Voort,—so he writes his name,—carver in timber, received £34 sterling "for cutting carving and wputting of severall pieces of carved work," &c., in his Majesty's apartment in the east quarter of the palace of Holyrood House, and the same year he grants a receipt for £3 sterling for cutting the beautiful coat of arms of Sir William Bruce now placed over a door at the foot of the great oak staircase in Kinross House,—Volume of Accounts in Register House, and Bruce Papers Kinross Charter Room.

In the above named year Alexander Eizat received £1360:19s. Scots "for workmanship and wputting of severall Lyncings of windowes, washing boards, doores, door pieces, chimney pieces," &c., in his Majesty's said apartment at Holyrood. In 1688 he provides timber for the windows and inside finishing of Kinross House, and in 1690 he put on the roof,—Volume of Accounts in Register House, and Bruce Papers Kinross Charter Room.]

the subject of an interesting and suggestive paper by the late lamented Joseph Robertson, Esq., LL.D., F.S.A. Scot., entitled "Notice of a Volume of the Accounts of Sir William Bruce of Balcaskie, General Surveyor of his Majesty's Works" (1674-79), which was read at a meeting of this Society held on the 18th April 1858 (see Proceedings of the Society of Antiquaries of Scotland, Vol. III. Part I.). Of the notice by Dr Robertson, afterwards printed in a separate form in 1860, I had the honour of receiving two copies from his own hands, one of which is now in the Charter Room at Kinross, and the other is retained as a pleasing memorial of the departed author; and my object in bringing these relative papers under the notice of the Society is chiefly to express my grateful sense of the value of the encouragement given me by Dr Robertson when I first broke ground as a local antiquary, by supplementing his communication from materials not accessible to him.

The principle contract with Robert Mylne is an amended one, the building operations having been in progress for several months previously to the date thereof; fortunately, however, there is sufficient material existing to bridge over that period. The Duke¹ of Lauderdale, in a letter addressed to Sir William Bruce of Balcaskie from Whitehall, 16th March 1671, thus writes: "I hope you will, when you can, send up the draught of the King's palace at Halyrud-house to the end his Ma^{ty} may declare his pleasure about it. I waite but for that occasion to present yo^r comission w^{ch} my brother sent to me for yo^r taking the Direction of that worke, and if you please I wold put in Sterlin Castle also into that comission, because the money given by the par^t is to be employed for both these houses.² Tell me freely yo^r opinion of this, or any thing els" (Bruce Papers, Box 7, Bundle 27, in Kinross Charter Room).

¹ He was only Earl at this time, not being created a Duke till the next year.

² In answer to a note of inquiry, Thomas Dickson, Esq., F.S.A. Scot., Curator of the Historical Department of H.M. General Register House, informs me that he does not find any notice in the Acts of Parliament of money granted for the building of Holyrood. On the 21st Feb. 1675-76 Charles II. granted his Royal Warrant for payment of £4374 3s. 4d. sterling as the estimated expense necessary for completing the works at the Palace of Holyrood.—Appendix to the *Liber Cartarum Sanctæ Crucis*, Bannatyne Club, Edinburgh, 4to, 1840.

In Her Majesty's General Register House are preserved Royal Warrants of Charles II. and James VII. concerning the Palace and Chapel of Holyrood, of which the earliest, relating to the rebuilding and reparation of the Palace, is dated Windsor Castle, 3rd June 1671. Some of these have been printed in the Appendix to the Chartulary of Holyrood Abbey, The Bannatyne Club, Edin., 4to., 1840. The order and direction from the Lords of His Majesty's Treasury for Sir Wm. Bruce to repair Holyrood, Castle of Stirling and park dykes thereof, was given at Elinburgh, 20th July 1671 (Bruce Papers, Box 10, Bundle 93, in Kinross Charter Room). According to an inscription on the north-west pier of the piazza within the quadrangle, the new portion of the palace was founded by Robert Mylne, master mason, 1st July 1671, so that no time seems to have been lost in commencing operations after the King's warrant was received.

Here the following characteristic and somewhat querulous fragmentary letter of Lauderdale may be fittingly introduced.

HAM., 19 Octobr, 1671.

Sr,—I am much allarumd by frequent Letters I have seen out of Scotland w^{ch} give but small hopes of finding the Abbey habitable at the time w^{ch} the King proposes for my being th[ere] (w^{ch} must be in March next). Sure I am I gave timely n[otice] above two moneths agoe Even as soone as his Maj^{tie} d[ec]lared] his resolution And I am amazed to heare That in s[tead of] building up what you throw doune of the apartmen[ts where] I must Lye, You are building the great new tower ([which is] of no manner of use so soone) and that you in a manner [let] the other Lye, without w^{ch} it is impossible to Lodge . . . And although my brother tells me you did confidently ass[ure] him that the apartement where I am to Lye shalbe [readie] in time: yet I am no way satisfied till I have it under yo^r owne hand that I may show it to the king To the [end] the blame may not Lye at my doore If his Maj^{ties} [Direc]tions be not punctually [comp]lyed with. Therefore I most desire you to write me a positive answer by the very first post To the end I may show it to the king that he may see what is to be relyed upon. Mr Milne hath used me so abominably by taking so fals measures and keeping to . . . time so very ill as to my house That I shall not . . . him nor advise you to relye on his word, but to w[ri]te]

what you can positively answer for, because if . . . be a faylor it will lye at
yor doore and not at his. . . .

For
S^r W^m Bruce of Balcaskie
Surveyor General of the King's Workes
In Scotland.

(1.) The following is an outline of the principal contract undertaken by Robert Mylne: which is dated Canongate and Edinburgh, 11th and 12th March 1672. It is docketed "Contract betwixt S^r William Bruce and S^r William Sharp and Robert Mylne, 1672," and bears, like the two supplementary contracts, to have been registered in the Books of Exchequer 3d January 1679 :—

To "sloppe" the Vaults under the rooms of the Palace called the guard hall presence and Lobby, and to take about two feet off the south wall of the old tower which falls within the Lobby, to enlarge the breadth of the same and to heighten the joistings level with the guard hall or presence and the next floor in the third story three feet, and alter and enlarge the hail doors, chimneys, turnpikes, stairs, "windoores," &c., and remove and take down the "cape house" from the platform of the old tower. To demolish the whole old "pale" of buildings designed to be rebuilt, and that part of the west quarter, the inner wall whereof is to be "slopped" for letting in the galleries and pillars, whereby the inner court is to be enlarged to the space of ninety-one feet and a half square. To "redde" the ground and build thereupon "Ane great towre upon the south pairt of the front of the palace equidistant from the present entrie in the s^d front with the old tower alreadie built upon the north pairt thereof, and that of fyne smooth and good aisler work," and "in form and maner lyke unto the s^d old tower; and upon the north thereof to erect "ane fyne handsome scale staire Twentie-three foott squire, All of aisler fyne hewen stone, to serve the second storie, fynelie wrought with fyne railles and ballasters with handsome pilasters globes and pendants, Each steppe being of one peece and lopped knitt and hung in the other, according to the draught and modell thereof done and wrought in timber, As the samyne is designed be the s^d S^r William Bruce." To erect galleries round the inner court ten feet broad with "pilasters columnes" with their bases, capitals, arches, and entablatures of the Doric order; and pavement

said galleries with fine gray stone pavement, smoothly joyned and wrought as paper with a bottle round towards the court. To build the whole walls round the said court and without the same in exact fine ashler work with three entablatures, the first at the first floor of the Doric order; the second at the second floor of the Ionic order; and the third round the top of the walls of the Corinthian order, the uppermost to have a caveto or casement hollowed or guttered in the "Cornish" for lodging a leaden spout.

"The steps of staires each of them to be of ope peece smoothlie cutt with round botles and exactly joyned and finished. Windoores and doores synlie arched with streight pends, The cast thereof not being discernible to prevent the evill of timber safe lintells." The chimneys to be wrought in fine ashler work ten feet above the roof having their finishing in the top with an entablature of good orler so that they resemble one another according to the "draught" thereof. To take down the stone work of the gabels of the roof above the Lobby and build up a side wall of good ashler work in place thereof, as good and joining with the work lately built above the "old altering," and raise and join the same to the tower as high as the said new work, and continue the same from the south end of the south tower to be built, and finish it with doors, windows, &c. To take the iron grates out of the windows in the haill "frontispiece" of the palace and enlarge the same windows, and put in new ribbats lintels and soles in place of those that are found faulty, and carry the tabling upon the said front at the floor of the second story all alike round "which for the present lowppes or rysees from the corners higher along the front." To build and finish the Kitchen Court as the same is designed, with kitchens, bakehouses, pastry rooms &c., and to build a draw well in the court, wells for drawing water in the respective kitchens, &c. To build the walls of the privy garden towards the east two hundred feet square and four ells high above the level of the garden, with a fine hewn "cape" of free stone above the said four ells, and set a handsome well hewn basin in the middle of the garden 16 feet in diameter with pedestal for a statue in the middle and well paved at bottom, &c. To build two walls in the outer court of the palace, the one from the south side of the new tower to be built, the other from the north side of the old tower already built, as far west as the breadth of the outer court, in good rough work, 12 feet high above ground with a handsome hewen cope above it, and in the middle of each of the said side walls opposite to each other to build and finish a handsome beautiful gate in orderly pillar work as shall be designed by the said surveyor.

To lay the "haill" Inner court with good and sufficient calsey whinstone squarely cut and exactly laid out-band and in-band all without the pillars and pavement of the galleries, with "devalls" on all sides guttered for conveying the rain and water that falls in the court into "Syvers" to be built in the several corners, all which Syvers are to be digged, built, coped, and covered with flag-stones closely laid, &c. To pavement all the chimneys, and put in tiles, and irons to support the tongs; pavement the whole kitchens, galleries and transees of the said buildings; pave with calsey stones the haill cellars, the transees with good and sufficient square stones; and put in water pipes, to be furnished by the Surveyor in places convenient. The gates and public doors to be of fine "mouldrie" work and arched as may be requisite. To finish the inside of the court (excepting the inside of the west quarter) and the outside of the east quarter that looks to the designed privy garden, in pillar work of three orders, as in the inner court, according to those already finished upon the north-west corner of the said inner court, which is declared to serve for a pattern for the rest. Likewise the windoors finished in the same corner to serve for a pattern for the whole windoors in the inside of the court and the side toward the designed privy garden upon the east. To take down the old work betwixt the north tower and the kirk, and rebuild the same in good ashler work, with "windoors" conform to the ashler of the tower. To furnish all materials and instruments requisite, and transport the same to the s^d house and palace; and "furnish, outredde, and sett off the s^d measone work be order, directione, and to the satisfacione of the s^d Surveyare generall, All upon the s^d Robert Mylne his owne proper charges and expenss"; and the whole to be completed betwixt and the 15th day of November 1673, with £200 sterling of liquidate expenses in case of failure. First agreement, with Mr Mylne, £4200 ster.; but by reason of some additions, such as carrying up the pillars to the top of the house, and in the east face of the east quarter that looks to the designed privy garden, &c., he was to have £550 ster. more money, or in all £4750 ster. "Lykeas the s^d Sr William Bruce, be advyse and order of the Loris of his Majesties Thesaurie, hes delyvered or shall cause to be delyvered to the s^d Robert Mylne and his servants The number of two thousand good and sufficient strong daillies With fyve hundreth double trees for scaffolding with the haill blockes and taickell provyded for the s^d work out of the store of the s^d work," and dispoones and makes over to the said Robert Mylne, "The haill stones either hewn stone or wall stone To be takine doune within the s^d

buildings To be disposed of be him in rebuilding of his Majesties s^d palace as he shall thinke expedient;" and Sir William Sharp binds and obliges him "To purchase and procure to the s^d Robert Mylne the haill grass in the yearlds called St Anthones yeard and that yeard which adjoynes to the north pairt thereof for grasseing of the s^d Robert his work horse allennarlie, gratis frielie without any pay^t of maill or dewtie therfore."

Before introducing the additional contracts, it may be better to bring forward the undernoted correspondence, viz, two letters of James Bayne, the King's wright, and one letter of William, Duke of Hamilton, with Sir Wm. Bruce.

S^a.—It is known to your honour y^t you had ye trust of ye King and his Lords of thesurie to agree w^t Mr Milne for ye rebuilding of ye palace of hale-rood house q^{ch} you did, and conforme to ye first articles of agreement q^{ch} is recorded be contract for q^{ch} you was to give him for his first bargone 4000 lb. sterling for mason work and all furnishing y^{to} belonging, and two hundred pound st. of money for scaffolding w^t tuo thousand dailles and five hundred double trees, and this he was to have for furnishing workmanship and nailes and this is ye true price of ye first bargone for masson work and scaffolding, and before ye s^d bargone was made ye lodges for masons to work was put up into y^e palace court, and y^after Mr Milne had made his s^d bargone he employed me for mason scafalding as well as for the Lodges, and in y^e s^d tyme he did offer me pay^t for upputting of y^e s^d Lodges and for o^yr work belonging to y^e scaffolding y^t was done be my Servants, and I refused y^e s^d pay^t from him, because I thought my self to be wright ther as well as he was Massone; and Secondly he sought my advice q^t I thought would do ye scaffolding, and simply I did tell him q^t I might do it for, and not expecting he would betray me and take it himself over my head, q^{ch} he did, and this is ye just reasons why I refused his pay^t because I looked upon no man to be my master ther except your self who was y^e Kings gen^l surveire who had y^e pour of ye whole work to be done according to your order, and had y^e strenth of magistracie in your commission q^{ch} did impour your honour y^after application be any man of any complaint he had to complaine according to his claime you had pour to judge and determine according to righteousnes at your pleasure, and y^for y^e reasons above written y^t ro^d Milne had pre-judged or wronged me I did give in aue complaint to your honour; your honour

did hear me very graciously and becam to be in wrath w^t Ro^t miln and desired me to convey Ro^t milne before you, you abused him in his face because he had betrayed me and y^t you[r] honour and S^r W^m Sharp at y^e bargon making kneu no oy^r bot Mr Milne had done it upon my acco^t and this is knoun to your honour to be of verity and y^r for because Milne had so betrayed me upon my complaint your honour did me justice and apointed Mr Milne to give me bond, I obliging my self to do y^e whole scaffolding of y^e fors^d first contract, for q^{ch} his obligation was to deliver to me 2000 dailes 500 double trees w^t y^e blockes and cables, 200 st. of money q^{ch} all was contained for scaffolding, w^t 4000 lb. st. for mason work, and this is the true price of y^e first contract betwixt your honour and him, and nou y^after your honour had farder considered for ye enlarging of more mason work conform to y^e termes of y^e second agreement qth has been added to y^e first contract since y^e first writing y^r of for q^{ch} he was to give [rather have or get] 550 lb. st. for mason work and furnishing thereto y^e s^d 550 lb. sterling and all yt above s^d your honour knows to be of verity.

S^a,—Nou at this p^{nt} tyme I am persuing Mr Milne befor y^e magistrats of Ed^r for compt and rekning q^t he is justly due me, and in my clame I place y^r y^t he is justlie due fiftie pund ster. of y^t 200 lb. ster., y^t he is due to me for scaffolding of y^e first bargon, y^t he made w^t your honour at y^e palace of halerood house, and also I persue him for my proportion accordingly for pay^t of him for scaffolding y^t I furnished to him to y^e 550 lb. ster., Second bargon that he made w^t your honour, and he denyes pay^t to me of y^e Samen because it seems y^after y^e first bargon was made y^t your honour caused write y^e contract over again q^{ch} contract nou names all y^e articles of y^e first contract w^t y^e prices y^rof, and also for y^e second bargone and articles y^rof it is yet s^d in y^e contract and also Milne is to have 550 lb. ster. nou he denyes my proportion for scaffolding as formerly s^d is and because of his denyall being verball, as yet, ye acestares does advise me to come over to your honour to get a declaration of your honours hand y^t you ordained Mr Milne your self to give me y^e 200 lb. ster.; w^t y^e 2000 dailes and y^e 500 Double trees q^{ch} your honour did agree w^t him according to y^e order, y^t your honour had from y^e Lords of thesuric, and this was y^e determination be your honour self when I made my complaint unto you; and this I hope your honour will not refuse me a-testification because it is known to your honour it is of verity.

(Docketed) "JAMES BAINE wry^t."

I have seen y^e attested double of y^e Contract wthin mentioned past betwixt S^r W^m Bruce, S^r W^m Sharp and Ro^d Myln, qthy mention is made that Ro^d Myln was to have 4200 lib ster. for y^e first bargane. Item 550 lb. ster. for additionall bargane, Item that y^e s^d Ro^d was to have 2000 dailles and 500 double trees for scaffolding wth y^e haill blocks and taikell provyded for y^e s^d work out of y^e stores.

The above letters are written on both sides of a folio leaf, and want signatures, dates, and address, and are most probably only copies of the letters addressed by Bain to Sir Wm. Bruce. Mr James Kennewie, clerk to the works, has added the above memorandum at the foot of the second page. I have put them up with the contracts for the rebuilding and reparation of his Majesty's Palace of Holyrood House, as also two decayed notarial instruments, dated respectively 29th June and 1st August 1678, taken against Robert Mylne, master mason, by James Kennewie, clerk to his Majesty's works, acting for Sir Wm. Bruce of Balcaskie, knight and baronet, his Majesty's Surveyor General. These instruments show much of Mr Mylne's first building contract still unfulfilled so late as 1678.

S^a.—I received yours of the 24th March wth a sketch of new lodgings you advise me to, which I can not determine untill I see them once ready, and you may show Haton! I will not part wth that kitching that belonged to the old apartment, so I pray you give Ro^d Kennedy the keys of it and the roum wthout it, for I have writen to him to keep them and not deliver them wthout my order. I pray you lett me know what alterations you are to make in these roums Hatton's order caries, and what ar the true number of them, and how they incomodat the two great apartments. This I intreat as soon as can be and am very sencable of all your favers, who am

Sir

Ha. 2 Apr. 75
For S^r W^m Bruce of Balcaskie.

Your obliged Friend and Servant

HAMILTON.

(2.) *Contract betwixt Sir W^m Bruce and Sir W^m Sharp, and Robert Mylne 1676.*

The following is an epitome of a Contract dated March 1676. That by special order and appointment of the Lords of his Majesty's Treasury to S^r

¹ Hon. Charles Maitland, afterwards third Earl of Lauderdale.

W^m Bruce the Surveyar General, and at the sight of the Lord Treasurer Deput "The Aisler Work built by the English att his Majesty's Palace of Halyrud house and the rough work within upon the west quarter shal be taken down and rebuilt In maner afterspecifeit"¹ whereupon Robert Mylne his Majesty's master mason, bound and obliged him "To demolish the said Aisler Worke which stretches Betwixt the two toures In the front of the said palace and to take it also laich doune as the battlement; As also to demolish The rough work In the inner pairt thereof soe low ase the tope of the vaults in the first Storie;" and "to Hew polish and prepaire, furnish sett and lay, the hail storie of the Ionicke order In the same maner that the other thrie faces of the Court is already done; And to finish it att the hight of the Ionicke Cornishe and to make vacnikes ffor Syvers for caryeing away the raine water from the Roffe." To erect at each end of this Ionic order a story height of the Corinthian order with entablature thereof "reaching through the breadth of this foir building and retourning to the towre on ilk hand, being foundit on the old battlement, Into which returned Work ther falls to be Eight Windoirs [&] Twelve columns of the same order that the Corinthiane is done already within the court." To put two chimneys, the one in the guard hall the other in the presence, and finish them at the top like the other chimneys, Furnish all materials &c. The work to be completed by the 2nd Feb. next thereafter, under a liquidate penalty of 500 merks Scots in case of failure, for the sum of £324 sterling, with the benefit of the whole of the old stones taken down.

(3.) *Contract betwixt Sir W^m Bruce, Sir W^m Sharp, and Ro^t Mylne, July 1676.*

By Special order and appointment of the Lords of his Majesties Treasury &c. to the Surveyor General, the said Robert Mylne binds himself to take down the "ffoir frontt wall" of the Palace from the battlement to the bottom and rebuild the same upon the old foundations "In exact Aisler smoothe as paiper close joynted." "To make ane gaitt of the dorike order, Tuo columns vpon each syde of the said gaitt, with pedestell Basse colunne chapterhead and intablatur of ane Modell according to threttie ane foott height, Raill and Ballesters and pilasters,

¹ "Wee have received information from the Duke of Lauderdale concerning the west quarter of that our Palace, and we do hereby order you to cause that parte thereof which was built by the Usurpers (and doth darken the Court) to be taken downe, To the end the inside of that quarter may be finished in Pillar-work agreable with the other three quarters," &c. (Royal Warrant of King Charles II., 21 Feb. 1675-76, already quoted in a note to p. 327).

with proper finishing above about and alongest the 4th intablitowre qth rownes from towre to towre, As also above the cornishe of the Insyde to the quholl breadth of the court, The cornishe enriched onelic with dentellie, The Columes tuo pairt sett off the portch, and the portch thrie or ffour foott off the naiked of the wall of the ffront, The doore wⁱⁿ consisting of Six ffoott and Twelve foott, With ane architrave goeing rownd freise and cornise finishing above by ane modell acordeing to threttine ffoott high with ane plint above the cornise, The outsyde off itt plume with the first face of the architrave, above qth the Scotts armes is to be sett exaectlie weill cutt with the supporters standing on the said plint Mantleing crowne and creist built and wrought weill in ane handsome copairtment or howseing, The windowes in the ffront consisting of the number of Ten of the same forme and flashione of these in the new towre, As the same and quholl worke is particularlie designed extenditt and seigned by the said Surveyar." To finish the whole work, furnish materials and provide scaffolding, betwixt and the 2nd of February next to come, under a penalty of £25 ster. in case of failure, for the sum of £350 ster. with the benefit of the old stones taken down in the said work.

WARRANTS TO SIR WILLIAM BRUCE FOR VARIOUS WORKS.

(1) "Order and drection fro y^e Lords of his Ma^{ties} threasowre to repair Holyrwd, Castle of Stirling and park dyks y^eof" Given at Edinb^{urgh} the 20th day of July 1671.

(2) "Bass—Order to survie y^e Bass and provide Materiales to repair it" Edin^{burgh}. 6 September, 1671. (Signed) Rothes, Tweeddale, Kincardin, Ch. Maitland : addressed, "For Sir William Bruce of Balaskie his Maties Surveyor g^{en}all."

(3) Warrend for repairing My Lord Chancelors Lodgeings and the Duke of Hamilton's [pr^{es}ent apartments in halyrud hous." Dated at Edin^{burgh} 6 Augst 1673. (Signed) Rothes, Dundonald, Ch. Maitland.

(4) "Warrend to refitt the [rooms and officehouses mentioned] for my Lord privie seal." Dated Edin^{burgh}. 7 Octo^{ber} 1675. (Signed) Rothes, Argyll, Ch. Maitland.

(5) Warrant to Sir W^m Bruce for bringing in water to the palace of Halyrudhous. Dated at Edinburgh, 5 Decem^{ber}, 1675. (Signed) Rothes, Dundonald, Ch. Maitland.

(6) "Gift of our Surveyer Generall of our buildings within our ancient Kingdom of Scotland" recalled (The original and a copy). Dated Whitehall, 30 May, 1678. "Subscribitur By his Maj. Comand, Lauderdale."

(7) Warrant for the Delivery of the Materials and Provisions remaining not made use of about the palace to his Majesty's Treasurer Depute, who shall oversee and take care of the further Repairing of the said palace. Dated Edin^r 13 March, 1679.

(8 and 9) Two Fragments, the one bearing (date) "Edinburgh, 26 June 1674, The Lord Comissioners of his Ma^{ties} Therie do heirby appoint Sir William Bruce Surveyar Generale of his Maj. works point those places within

The other undated, as follows, "It being necessarie In pursnance of his Ma^{ties} comands to us That the houses and buildings on his Ma^{ties} Island of the Basse be surveighed, and the necessarie reparations y^eof forthwith gone about, you ar[e w]ith [all co]nvenient diligence to repair thither ne[cessa]ri[e] to

The late David Laing, LL.D., contemplated writing a memoir of Sir William Bruce, but I know not what progress he may have made in it. In 1868 I gave a lecture at Kinross on "Sir William Bruce and his Times, or Kinross shire in the latter half of 17th century,"—necessarily localised,—and since then I have added largely to my stock of materials; but if Dr Laing's collection and mine could be brought together, satisfactory progress would be made for providing a desideratum in Scottish literature, a life of our Scottish Inigo Jones.

V.

NOTICES OF THE UNPRINTED CHARTULARY OF THE PRIORY OF ST ANDREW OF NORTHAMPTON, AND OF CHARTERS BY THE SCOTTISH KINGS AND PRINCES, AS EARLS OF HUNTINGDON, AND OTHER NOBLES, CONTAINED THEREIN. By JOSEPH BAIN, F.S.A. Scot.

This fine MS., a square folio of 304 leaves of vellum, written in a hand apparently of the 15th century, is preserved among the Cottonian MSS. in the British Museum (Vespas. E. xvii.). From a note on the flyleaf it seems to have been once the property of Christopher, Lord Hatton. Some of the Charters have been printed in the last edition of Dugdale's "Monasticon," and a list of the whole is given in that work, the editors of which say that the Chartulary is "probably the finest of all the Cottonian MSS."

From it and another of the Cottonian MSS. (also as yet unprinted as a whole)—the Register of the Nuns of St Mary of Clerkenwell—much information is to be derived regarding the connection of the Scottish princes as earls of Huntingdon, with those two religious houses. The tenure of this earldom by the Scottish princes, from David I. to his great grandson John "le Scot," for a century and a half, till it fell to coheiresses, and lay dormant till revived in the Hastings family, may probably be illustrated in the Scottish Calendar in progress under the direction of the Lord Clerk Register; but as the documents to be embraced therein are necessarily restricted to those in the Public Record Office, it may be acceptable to refer in the "Proceedings" to some in another place of deposit possessing almost equal interest.

The Chartulary begins with an account of the origin of the founder, Simon de Senlis—of his marriage to Maud the elder daughter of Waldeve, Earl of Huntingdon, with whom he acquired the Honour of Huntingdon—relates that Alicia, her younger sister, was given in marriage by him to Ralf de Thoeny, with 100 librates of land in the honour—that Simon, then earl, in the eighteenth year of the Conqueror's reign, founded the house of St Andrew of Northampton, and submitted it to the house of the Blessed Mary

"de Caritate" [on the Loire]—that he set out for the Holy Land in the time of Henry I., and in returning died at the mother house of La Carite, where he was buried—when the King bestowed Maud his widow, with the ward of Simon "Junior," on David, brother of the King of Scotland [afterwards David I.]. Though the son and grandson of Simon the first earl were (as related in the Chartulary) earls of Northampton, which title expired with the grandson about 1182, the Honour of Huntingdon seems to have been held from the second marriage of Maud, by her husband David of Scotland, his son Henry, and his grandsons Malcolm, William, and David, with slight intervals of interruption, though the descendants of Simon, or at least persons bearing the same Christian and surname, are found on the English Rolls till after the middle of the 13th century.

The antiquities of this Honour, and its members, are an interesting study to those who wish to learn the history of the Norman colonisation of Scotland by David I.; for it is as witnesses to the charters of that prince and his son that the names of the De Morvilles, De Bruses, Olifards, Ridels, and others, first become connected with Scottish history.

The foundation charter is granted by Simon the earl, and Matildis his wife, and endows the monks of St Mary of Charity at "Hamtonia," with their church, and all the other churches of the town—the whole tithes of Yerdeleya and Frodigeya, and in Deventreya certain possessions, and the tithe of the granter's mares. Grimboldus, Achardus, Otgerus, and Burchardus, also confer various churches and tithes. Roger Olifard gives 3s. yearly. The original deed must have borne the crosses of the granters, as may still be seen in the celebrated instrument by William I. and his queen, and many prelates and others, preserved at Canterbury Cathedral, settling the precedence of Canterbury and York. Various charters from the son and grandson of the founder follow. Those of the Scottish princes commence on folio 7, ending with folio 10b; though there are some detached in other parts of the book, besides grants from the De Morvilles and their successors the Lords of Galloway and the Earl of Winchester.

DAVID I. [1108-1124-1153]

- I.—Confirmation, David, "brother of the king of Scotland," to the monks of St Andrew, of the lands which his ancestors gave them in the Honour of Huntingdon in frank almoigne. To be free of suits of hundreds and all secular services, with frank pledge in their lands of the Honour by his bailiffs visiting. If amercement chances in the visitation, the monks to have the same. Witnesses :—Robert de Basyngham, Richard de Lyndesi, William de Stilevele, Randulf de Esseby, Robert Basset, &c.
fol. 7.
- II.—Charter, David "Earl of Huntingdon," to the same, of church of Potton, with its chapels.
fol. 7b.
- III.—General Confirmation, David "Earl by the Grace of God." *ib.*
- IV.—Confirmation by same of two parts of the tithes and assarts of Yerdele [Yardley]. Witnesses :—Richard de Pecco, Simon de St Licio, Roger son of Adam, his seneschal, and others.
fol. 8.
- V.—Grant by same to Master [name omitted], his clerk, of the church of Potton.
ib.
- VI.—David, King of Scots, to Robert, Bishop of Lincoln and Hugh, Sheriff of Leicester, and all his servants and lieges, Franks and Angles. Grants church of Pottona to Northampton. Witnesses :—Robert de Bend (?), Hugh de Morville, Robert Corbet, Edward de Capello. "Berwykke."
ib.
- VII.—The same. Grant of tithe of his flocks [*pecoribus*] and fruits of the earth. A mill and a carucate of land in Scaldeford in frank almoigne. Witnesses :—Michael de Hamsel, Robert de Brus, Robert fitz Nigel.
"Gerdelai." fol. 8b.
- VIII.—The same. Confirmation of all they had on the day when the granter was made king of Scotland. William nepos Regis [William Fitz Duncan] is among the witnesses.
ib.
- IX.—The same. 40s. in Bedford. Witnesses :—Herbert the Chancellor (?), Hugh of Leicester, and Grimbaud.
"Huntinglon." *ib.*
- X.—The same. Grant of church of Brawfeld and one virgate, and two carts in Yerdele to gather dead wood. Herbert the Chamberlain, and Robert Brus among witnesses.
"Dunfermline." *ib.*
- XI.—The same, to his Barons. Grant of 10s. to Northampton of the rent which Turch son of Swertling, gave him in exchange for the tithe which

they have of the granter at Toteham. Witnesses :—Robert de Brus, Walter de Bolebec, Hugh de Morville. “Huntinglon.” fol. 8b.

- XII.—Confirmation, David, brother of the king of Scotland to his seneschal and barons. Grants 20s. of his mills of Paxton to Northampton, and three seams of corn [*frumenti*] from his barn of Barton [Earl's Barton ?] at Michaelmas annually to prepare wine and wheat to make oblations at the consecration of the Body and Blood of our Lord Jesus Christ, in said church of St Andrew. Witnesses :—Hugh Ridel and others. [This charter is repeated at fol. 223, where Ralf Rydel is also a witness.] *ib.*

EARL HENRY [1124–1152].

- XIII.—Earl Henry, son of the king of Scotland, to Robert Polyot, his steward, and his “good men” of Huntinglon. Grants to the monks of St Andrew of Northampton, 40s. of the rent of Huntinglon yearly, besides his mother's alms, which they had in Bedford, now given to Hugh de Broy[z] till he give them an equivalent in a convenient place. Witnesses :—Herbert the Chamberlain and Robert “de Sigillo.”

“Chyngor” [Kinghorn].¹ fol. 10.

MALCOLM IV. [1153–1165].

- XIV.—M[alcolm], King of Scots, to his good men of Huntinglon. Confirms the three seams of corn to make oblations yearly at the “Pascha Floridum” [Palm Sunday]. “David Olif[ar]l” among witnesses.

“Haringwuth.” fol. 9b.

- XV.—Same. To his steward and servants of Huntinglonshire. Grants church of Brugfeld and one virgate, and two carts in Yerdele for dead wood. The first witness is “Walter fitz Alan.” *ib.*

- XVI.—Same. Confirms his grandfather's grants. Witnesses :—Walter the Chancellor, H. de Moreville, Robert de Brus, R. de Moreville.

“Huntinglon.” *ib.*

- XVII.—Same. To W. Burlet, his seneschal of Huntinglon. If William le Maille has granted three acres to church of Ryhulle, he is to see they

¹ This grant is repeated on fol. 215. There is also on fol. 10 a general Confirmation by this Prince. Witnesses :—William the Chancellor, Robert Foliot, Eustace Fitz John, and Robert de Brus. Also on fol. 223b, Hugh de Baylol, for the soul of his brother Bernard, gives to the monks 20s. in the vill of Wavendene [no date].

have them without delay. Witnesses :—Walter fitz Alan, Richard de Morville, Odinell de Umfraville. "Craues[on]." fol. 10.

XVIII.—Confirmation of last grant. Witnesses :—Walter the Chancellor, H[ugh] de Morville. "Huntinglon." *ib*.

WILLIAM THE LION [1165-1214].

XIX.—William, King of Scots, to his seneschal and barons. Confirms church of Brugefeld, and two carts of dead wood at Yerdele. Witnesses:—David Oliphard, Geoffry Ridel, Hugh Ridel Steward, [Dapifero]. fol. 10b.

XX.—Same. Confirms all his grandfather's grants. Same witnesses as last. *ib*.

HELENA DE MOREVILLE [1194- . . .]

XXI.—Helena de Morville, for the soul of her husband, Rolland, gives them a carucate of her demesne in the valley of Lauder, in the vill of Newbyggyn, which was Liulf's and Gledewyses, viz., 4 acres of Sveinesbreche, by the highway coming from Newbyggyn towards the west, as far as the exit of said vill; and so ascending between the heads of the crofts to the nearest sichet, and on the other side of the way of the said Morflat, viz., from the way aforesaid towards the east to the nearest spring, and from the green way [*viridi via*] coming from Heghope towards the north, as far as the head of Huntingdon; and 3½ acres of meadow at the spring next "Derimedue." Witnesses :—Fergus, brother of Sir Rolland, Henry de Ferlyugton, Alan de Thyrlestan, Peter de Hage, William de Cuningesburg, Thomas son of Rolland, Arthur de Airlres, and others. fol. 238.

ALAN OF GALLOWAY [. . . -1233].

XXII.—Aloenuz, son of Rolland, Constable of the King of Scotland, gives the monks a carucate in Lauderdale, viz., that which Elena, his mother, gave them. Witnesses :—Gilbert, son of Cospatrick, Alexander, son of Cospatrick, William de la Mara, Thomas "Anglicus," Ralf de la Champagne, James the Dean, Hugh and Adam, chaplains, Walter and Etheldred, the granter's clerks, and others. fol. 239 (inserted panel).

ROGER, EARL OF WINTON [1233-1252].

XXIII.—Roger de Quency, Earl of Winton, Constable of Scotland, with consent of Helen, his wife,¹ confirms to the monks of Northampton 3 marks of the farm of Redepeth, and 20s. of the farm of Langeid, and half a mark of the farm of Croubelan (of the gift of Alan, son of Rolland); the above grant of Elena de Morville in Newebygyng. Of the gift of Thomas, son of Rolland, Earl of Atholl, 2 marks in the vill called New Land in the Vale of Tweed, of the land which was Richard de Moreville's. Witnesses:—Saer of St Andrews, John the Monk, Bernard de Rypol, Adam, dean of Brackley, Philip, servant of Richard de Elynton, and others. fol. 240 (inserted panel).

In reference to these gifts a curious transaction took place between the canons of Dryburgh and the monks of St Andrew. In the chartulary of the former house,² two deeds are recorded by which Beatrice de Bello Campo and her son, Richard de Moreville, gave to Dryburgh the church of Bosyate [in Northamptonshire] about A.D. 1150.

As the Northampton monks possibly found their Lauderdale possession an inconvenient one, and the Dryburgh canons doubtless entertained the same opinion of their Northamptonshire church, an agreement, the date of which unfortunately does not appear, seems to have been entered into between the houses. The Dryburgh monks had previously by deed³ granted their church of "Bosgitta" to the canons of St James of Northampton, to be held by payment during the life of a certain Adelard, after the death of Algar, his father, of 20s. annually, and a "bitancia," or 2s. instead. On this person's death the church was to remain the free property of St James, that house paying 2½ marks yearly to Dryburgh after Christmas, whenever [*quando*] the latter house should send its messenger to the abbot of St James. This transaction having probably been in force for some time, how long we know not, for there are no dates, the next deed in the Dryburgh chartulary is an agreement between the canons and the convent of St Andrew of Northampton touching the land of Newbygyng in the vill of Lauder. The latter house grants to Dryburgh the land in Lauder which they have of the gift of Lady Helena de Moreville, as in her charter. Dryburgh paying to the granters 2 marks of

¹ She died before 1252 [Pat. Rolls].

² Bann. Club, pp. 92, 93.

³ Page 66 Dryburgh Chartulary.

silver at the Feast of the Purification yearly, at the house of St James "juxta" Northampton; viz., out of the $2\frac{1}{2}$ marks which the abbot and convent of St James are wont to pay to Dryburgh for the church of Bosgitta, they are to pay 2 marks to the House of St Andrew, and 5s. to the abbot and convent of Leicester, and to retain the remaining 20d. for the monks of Dryburgh till they send for it. Each house has the power of resuming its own property, if any defect occurs in the title, or in the regular payment of the money.

These transactions, however, are also recorded in the Northampton MS., and a date is fixed there for one of them.

On fol. 238b, an agreement is recorded, made in the fourth year after the first coronation of Richard, king of England, on the Chair of St Peter the Apostle [Feb. 22] in a general chapter of the Premonstratensian Order at Newhouse, before William, abbot of Leschys; Robert, abbot of Newhouse, and almost all the other abbots of the order in England, between the abbot and convent of Leicester and the abbot and convent of Dryburgh, in the plea depending between them concerning a rent of 10s. claimed by the former against the latter house, of the gift of Richard de Morville from half a carucate of land in Bauglane held by the canons of Dryburgh. The abbot and convent of Leicester quit claim the same to them for a rent of 5s. assigned to them by the Scotch abbey out of the rent of 22s. which the canons of St James of Northampton pay to Dryburgh for the church of Bosiate. The seals of the convents of Dryburgh and Leicester, and the abbots of Leschys and Newhouse are appended. Witnesses:—Jordan, abbot of Torreston, Adam, abbot of Wyleby, Abbot (*sic*), Adam de Welleford, Geoffry and Adam, canons of Dryburgh, Philip and William, canons of Leicester, and many others. This charter was made a^o M^oC^oXC^oIII.

On same folio a letter follows, addressed by Alan, abbot, and the convent of Dryburgh, to the abbot and convent of St James, requesting the latter to pay to the abbot of Leicester 5s. at the Purification yearly, out of the rent which they owe for the church of Bosiate. The writers add a *P.S.* not to wait for the letters that they have from the writers concerning their rent to be delivered to the abbot and canons of Suleby. (No date.)

The next document [on folio 239] is a similar agreement to that which has been already recited from the Dryburgh chartulary,—that house receiving the land in Lauderdale from Northampton. It is very probably the

counterpart of the other. The seals of each capitular body are said to be appended. The witnesses are :—Sir Adam, abbot of St James of Northampton, Sir William, abbot of Crakefergus [Carrickfergus], Robert, prior of Coverham, Osbert, prior of St James, Warin the Canon, Robert de Bevilla, clerk of the Lord Bishop of Lincoln; Simon, son of Seward, Henry de Plumpton, clerk, Sampson de Aula, Walter de Stutesbury, Roger de Alecester. (No date.)

ISABELLA DE BRUS [1245–1252].

XXIV.—Isabella de Brus, in her viduity, for the souls of her ancestors and successors gives to the monks of St Andrew of Northampton in frank almoigne, the pasture of eight animals, viz, four oxen, two cows, and two horses, with her own animals, both in the woods and meadows of her manor of Exton. Appends her seal. Witnesses :—Sir Peter de Thany, her seneschal, Sir William de Lacu and Sir Robert de Beaumeys, her knights, William de Rolleston, and others. (No date.) fol. 247.

This lady was the daughter of Earl David of Huntingdon, and mother of the Competitor. Her husband died in 1245, and she herself in 1252, so the date is nearly approximated.

XXV. Bernard de Brus, knight, son of Bernard de Brus of Exton, gives the monks the church of Exton and all its liberties—title of hay in his Park of Bernard's hyll and elsewhere, and the pasture for eight animals as given by his grandmother, Isabella de Brus. Appends his seal. Witnesses :—Sir Stephen, archdeacon of Northampton, Sir William de Boseville, sheriff of Rutland, and others. At Northampton on Wednesday next before the Feast of St Mark Evangelist, 1283. In the 11th year of King Edward, son of King Henry. fol. 247b.

The granter is evidently the second Bernard, son of the first, and nephew of the Competitor. According to Camden, the first Bernard received Cunington and Exton from his mother the co-heiress of Huntingdon. He was the ancestor of Sir Robert Bruce-Cotton, the celebrated antiquary.

The last document relating to Scottish matters is in fol. 248, being a writ of Edward [11. ?], King of England, appointing Roger Loveslay and John de Metyngeham as justices to hold an assize of novel disseisin arraigned by the prior of St Andrew of Northampton against Robert de Brus, John

de Burlege, and Thomas le Provost [Reeve] of Exton, regarding common pasture there. Dated Wodestok, 25th June, 5th of his reign [1311].

To the true antiquary these dry notes of names and dates recall something more—the far-off time when the Kings of Scotland occupied the position, as it were, of the eldest son of a great house—seated at the right hand of the English King in the Palace of Westminster. The homage for Huntingdon and for their lands in Northumberland and Cumberland—the relics of a far wider domain—though in no way touching the kingdom's real independence, gave countenance to the further claims made by Edward I., and aroused the bitter struggle that ended in the complete independence of the smaller country.

VI.

NOTE ON A STANDING STONE NEAR FORD, ARGYLLSHIRE. By J. ROMILLY ALLEN, C.E., F.S.A. Scot.

The following is a short description of a standing stone which I visited last summer on the recommendation of the Rev. R. J. Mapleton of Duntroon.

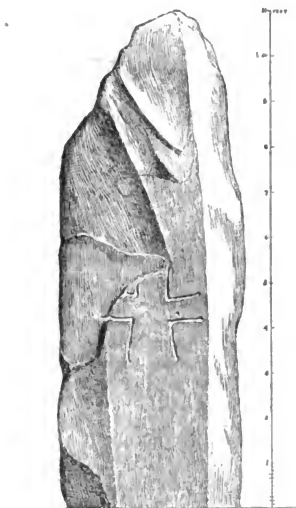
Locality.—The stone is situated 150 yards north of Torrens Farm, which is $\frac{1}{4}$ of a mile north of the larding place for the steamers near Ford at the south end of Loch Awe, Argyleshire (Ordnance Map, sheet 37).

Situation.—The stone lies at the foot of the hills bounding the west side of Loch Awe, not very far from the shore. The view commanded from this point, although picturesque, is not by any means striking.

Form—Material—Dimensions.—The stone is a monolith of unhewn whinstone of irregular shape. It is 11 feet high and 4 feet by 2 feet 8 inches at the base.

Sculpture.—At a height of 4 feet from the ground is an incised cross of rude outline, and on the right limb of it a very decided cup mark. The outline is not continued round the ends of the cross, as is usually the case,

but four open gaps are left. The upper portion of the cross on the left side is incomplete, as the stone appears to have scaled away. I saw nothing which led me to suppose that the cross was recent. There are no other marks on the stone which I could detect.



Stone, near Ford, Argyllshire.

Other Standing Stones.—Between Ford and Kilmartin are two other standing stones. The first, 100 yards west of the road half a mile from Ford. It is 9 feet 6 inches high, and 2 feet by 1 foot 9 inches at the base,

The second is close to the road on the east side, 1 mile from Ford. It is 14 feet high and 3 feet by 4 feet at the base. The material is slate. It inclines considerably from the perpendicular. Neither of these stones is sculptured.

VI.

ON THE PRESERVATION OF NATIONAL ANTIQUITIES AND MONUMENTS IN DENMARK. BY J. J. A. WORSAAE, VICE-PRESIDENT OF THE ROYAL SOCIETY OF NORTHERN ANTIQUARIES, COPENHAGEN, HON. MEM. S.A. SCOT. TRANSLATION COMMUNICATED BY A. W. FRANKS, ESQ., BRITISH MUSEUM, HON. MEM. S.A. SCOT.

[A. W. Franks, Esq., Hon. Mem. S.A. Scot., communicated a translation of a Report drawn up by Monsieur J. J. A. Worsaae, Hon. Mem. F.S.A. Scot., and printed in Danish in "Aarbøger for nordisk Oldkyndighed og Historie, 1877," and in French in "Mémoires de la Société des Antiquaires du Nord, 1877." This report he considered would be useful and interesting at the present juncture, when the Legislature was engaged in a measure for the preservation of Prehistoric Monuments in the British Islands; especially as showing what great steps had been taken and how considerable an expenditure had been incurred by so small a country as Denmark, for the preservation of its national monuments and antiquities. This translation had been prepared with the sanction of its author, who has kindly read it over to ensure accuracy.]

REPORT ON THE PRESERVATION OF NATIONAL ANTIQUITIES AND MONUMENTS IN DENMARK, DRAWN UP AT THE REQUEST OF THE IMPERIAL AND ROYAL LEGATION OF AUSTRO-HUNGARY AT COPENHAGEN.

Inquiries both official and private have been frequently made in various countries, for instance, France, England, Sweden, and Finland, as to the measures taken in Denmark for the exploration of the national antiquities and monuments, and it is therefore considered an opportune moment for publishing as an answer to these queries the present report, prepared in

the year 1875, more especially as there is no similar publication in the archaeological literature of Denmark.

A. *Antiquities*.—Until the beginning of the present century there was no special public collection for national antiquities. A few objects found in Denmark were preserved in the Kunst Kammer, established by King Frederic III. in the second half of the seventeenth century (1648–70), and containing, according to the fashion of the age, antiquities of all countries, medals, ethnographical objects, natural history specimens, objects of art, furniture, and curiosities, totally without classification. But these rarities came chiefly from accidental finds, not from careful excavations, and they consisted principally of objects of intrinsic value, of gold and silver, and belonging to the class of *Danefæ*.¹ The Danish law, in fact, (5-9-3, set out in the decree of 22d March 1737) assigned to the king or the crown, as was the custom from time immemorial, all treasure or deposit of gold, silver, and precious objects without an owner found in the earth, and the finder was obliged under certain penalties to give up his treasure-trove to the fiscal without any compensation. But as under this system many precious objects were sold or secretly melted down, to the prejudice of archaeology, there appeared a decree of the 7th August 1752, which still maintained the right of the crown to the *danefæ*, under the same penalties, but at the same time assigned to the *finder* the intrinsic value of the metal; the remuneration belonged in all cases to the finder, except when the owner of the ground had caused excavations to be made with the object of finding a treasure, or had expressly reserved to himself the right to what might be found in explorations undertaken by his orders. Experience has proved that this arrangement is good in practice, and extremely advantageous to the public collections, especially as it is now widely recognised in Denmark, the finders knowing that they will obtain from the State, whose agents examine and appraise the objects found, not only a more liberal price than from private individuals, but also that any trouble taken to collect and preserve objects is acknowledged by a reward

¹ In old Norse *danarfe*, from *fe*, property, and *dánar*, of a dead man.

in addition to the value of the metal. Latterly also, England, in modifying the old rigorous law of treasure-trove, has paid great attention to the Danish legislation and to the experience thus gained.

With the exception of the penalties imposed upon illegal detention of the *danefer*, the law contained no special regulations as to the sending of the objects found, nor any prohibition from selling them in the country or abroad.

However, at the beginning of this century, Professor R. Nyerup, having commenced making a special collection of national antiquities, with the object of preventing the constantly increasing destruction of them, and the entire nation being invited to lay offerings on the altar of its fatherland, in order to illustrate the progress of civilisation in Denmark from the most remote ages to the present day, the Government took the matter in hand and established a Royal Commission for the Preservation of Antiquities (1807), entrusting it with the duty of the preservation of antiquities and of the monuments throughout the kingdom. This Commission was replaced in 1849 by a committee of two directors, the keeper of the Museum of Northern Antiquities (Thomsen), and the inspector of ancient monuments (Worsaae), who jointly had the supervision of the antiquities of the whole kingdom. In 1866, the two directorates, with those of the historical and ethnographical collections, were united in the hands of one person (Worsaae) in order that the regulations should be administered with more uniformity and decision. This organisation still exists. The original Commission founded the collection which has now become the Royal Museum of Northern Antiquities; but it is only since 1815, and under the direction of Thomsen, that the collection so greatly increased. Being placed as a national institution in the department of the Minister of Public Worship and Instruction, it annually figures in the budget. Besides its ordinary grant it has funds, destined, as before, for the purchase of *danefer*, and also it can command further special sums for rearranging the collections, extensive explorations, or for the purchase of large collections. However, at a comparatively small expense, the museum has risen by degrees to be of very considerable importance. It has been successively

augmented by the national antiquities from the Kunst Kammer, the Cabinet of Coins, and other collections; it is enriched, moreover, by gradual acquisitions, by explorations in different parts of the kingdom, and especially by private donations, so that it comprises from 40,000 to 50,000 specimens now arranged in the Prinzen's palace. The number of the antiquities coming from all parts of the kingdom continues to increase so uninterruptedly that the idea of providing a large building to contain the national collections comes to be more and more entertained. To the museum are attached archives open to the public, which contain, besides an archaeological and topographical library, drawings and descriptions, both of remarkable finds and of the monuments dispersed over the country.

It was essential that the people should interest themselves in the progress of the museum; and to awaken and sustain this interest the directors took the following measures :--

(1.) To admit the public constantly to visit the collections and to explain their contents: later, when the increase of the museum and of the numbers of visitors rendered it impossible to give oral explanations equally to all, guides were published, in several languages.

(2.) To publish in the newspapers a list of objects sent or presented.

(3.) To publish popular treatises on the antiquities and their significance, a labour in which the museum has been ably seconded by the Society of Northern Antiquaries.

(4.) To give popular lectures at Copenhagen and elsewhere.

(5.) To establish small collections in the provinces, cathedral towns, colleges, high schools, and normal schools, especially for the instruction of youth.

(6.) To encourage relations with the clergy, schoolmasters, and the higher class of peasants, who have influence over the people, and are in a position to be on the watch for discoveries.

(7.) And, lastly, to distribute money, books, and other rewards to those who distinguish themselves by their zeal and care in preserving or collecting antiquities.

Thanks to these measures, it is rare for important discoveries to occur

without being speedily made known to the museum; the objects discovered are, in fact, generally sent to it direct. The small public collections in the provinces, which have an administration independent of the state, have incorporated in their statutes the rule of offering to the central museum at Copenhagen any finds particularly interesting or instructive, and to ask in exchange duplicates of commoner objects. On account of their strong national feeling, the people make it a point of honour to gather materials for the history of prehistoric times; nor is it any longer necessary now, at least, to prohibit the export of antiquities in stone, bronze, and iron. The museum has found it succeed wonderfully to have kept up the principle of spontaneous action, and not to interfere with but rather to favour the formation of private collections; experience having shown that this has been the means of saving from destruction many objects which would otherwise have been lost, and that the private collections, or the greater portion of them, would become, sooner or later, at least, incorporated in the museum of the State.

As to the objects of the museum and its internal arrangement, of which the details are more fully given in the printed Guides,¹ it may be generally said that the aim of this institution is to throw light upon the colonisation of Denmark, its relations with other countries, and the progress of its internal civilisation in Pagan times (from the beginning of the Stone Age till A.D. 1030), in the Catholic period (till 1536), and, finally, from the Reformation, almost as long as the old style of the Renaissance lasted, or rather until the establishment of absolute Government in Denmark (1660). The classification of the specimens is strictly chronological, as far as that can be from time to time better determined; it is not limited now, as at first, to classing the prehistoric objects according to the broad periods of Stone Age, Bronze or Iron Age, but an attempt is made to distinguish more minutely the beginning or end, or the periods of transition, of each of these wide epochs, in order to demonstrate more clearly the gradual advance from one primitive stage to another more enlightened, and to

¹ See the Guides in Danish, French, and German prepared by M. C. Engelhardt, Copenhagen, 1866, 1874, and 1876

distinguish between foreign influence and native and more independent work. From this point of view it was of the first importance to class in series only such objects as were found singly, whilst the great finds of each period have not been separated, but have been kept together and arranged geographically, according to the different regions in which they were found. One is thus enabled, not only to distinguish the objects of each period, and of each subdivision, but also to recognise the characteristic peculiarities of the different parts of Denmark, the southern and eastern provinces of which were evidently reached by the wave of foreign civilisation at an earlier period than were the northern and north-western, in the same way that culture, coming from the south, penetrated sooner into Denmark than into the more northern and distant parts of Scandinavia: Sweden and Norway.

Besides the Museum of Northern Antiquities and the Cabinet of Coins ¹ must be mentioned the Ethnographical Museum ² and the Cabinet of Antiques,³ as containing objects for comparison which can, from various points of view, give valuable ideas in explanation of Danish antiquities. But, as was natural for Danish museums, they were compelled chiefly to make the completest possible collections of such things as bore particularly upon civilisation in Denmark.

The historical-archaeological museums have not limited themselves, as is the case with the Museum of Northern Antiquities, to objects dating from before 1660. In the belief that modern history, from 1660 to the present day, is not less worthy than ancient history of being illustrated by contemporary and characteristic objects, a plan until now too much neglected in most countries, an historical museum has been established in the old

¹ *Den Kgl. Mynt og Medaille-Samling paa Prindsens Palais* (Le Cabinet royal des monnaies et médailles, au Palais du Prince), Guide des Visiteurs, Copenhagen, 1869, 8vo.

² C. L. Steinhauser, *Kort Vejledning i det Kgl. ethnographiske Museum* (Guide au Musée royal d'Ethnographie), 8vo, Copenhagen, 1874. Also German translation, 8vo, 1876.

³ L. Müller, *Den Kgl. Antiksamling, Haandkatalog* (Catalogue de la Collection royale des Antiques), 2d edition, 8vo, Copenhagen, 1872.

castle of Rosenborg at Copenhagen, built by Christian IV., from 1610 to 1617, bearing the name of the Chronological Collection of the Kings of Denmark (director Worsaae), and which forms the continuation of the Museum of Northern Antiquities; in fact, it embraces the period between the reign of Christian IV. and the death of Frederic VII. in 1863, comprising the whole duration of absolute monarchy from 1660 to 1848. In the rooms, which, by a happy coincidence, have partially preserved the successive styles of the different periods, there has been arranged, treating the royal house as a centre, and in strict chronological order, a rich and valuable collection of portraits of members of the royal family, and of the celebrated men who surrounded them; costumes, furniture, personal ornaments, arms, and other objects characteristic of the style of each epoch, and of which the printed descriptions will give a clearer idea.¹ This museum, which also contains the crown jewels, thus contains important materials for the history of the industry, the art, and the recent progress of civilisation in Denmark. The Chronological Collection, which is a trust of the royal family, placed under the control of the Government, has, as such, a high administration, composed of the Minister of Public Worship and Instruction, as a representative of the State, and one of the principal functionaries of the court, as that of the royal family. The expenses occasioned by the increase and support of the collection are borne exclusively by the Treasury.

B. *Monuments*.—It was in the time of Christian IV. (1610–48) that measures were first taken for the preservation of the principal remains of antiquity, which were seriously in danger. By order of the king, some large runic stones were removed from various places to Copenhagen, where several were destroyed in the fire of 1728, and such as were saved are now in the Museum of Northern Antiquities. But during the seventeenth and

¹ Carl Andersen, *De danske Kongers chronologiske Samling paa Rosenborg*, 3d edition, Copenhagen, 1875, 8vo; and in German, 1872. *Mindeblade fra de danske Kongers chronol. Samling*, 2d edition, 4to, Copenhagen, 1875; and in English, 4to, 1868. Dr C. Brock, *Den oldenborgske Kongeslegt især under Enevælden*, 8vo, Copenhagen, 1870.

eighteenth centuries the State did nothing for the national monuments, of which a considerable number perished, or were ruined by pretended restorations.

It was only after the Royal Commission for the Preservation of Antiquities was formed in 1807 that any serious steps were taken to preserve such as there was any hope of saving. After having received reports, often very imperfect, from the clergy of the whole kingdom, as to the condition of the monuments, the Danish Chancellerie (the Ministère de la Justice), on the proposal of the Commission, placed under the protection of the law a number of monuments of antiquity and of the Middle Ages throughout the country (1809-10).¹ But the legality of this measure was at first doubtful, the proprietors of the monuments not being obliged by any law to give up their right to them, especially without an agreed compensation; moreover, even where there was no opposition, it was omitted to register in legal form this taking possession in the name of the State that future purchasers should be duly forewarned.

The consequence of this omission did not fail to be felt, and the more so that, as the Commission did not receive any salary, and had at its disposal only small sums for carrying out the object of its mission, it had not the means of causing the monuments spread through the kingdom to be carefully inspected by competent men. Besides which, several of the monuments disappeared gradually, either without the knowledge of the Commission, or without their having ventured to prosecute the offenders.

However, the Commission attempted to persuade the owners voluntarily to give up their rights to the monuments, and to put them under the protection of the law, and in a considerable number of cases they were successful. They succeeded also in buying other monuments, where the price was moderate.

In 1847 official inquiries were made, which showed that a great number of monuments, declared national in 1809-10, were completely destroyed,

¹ A list of these monuments is printed in the *Antikvariske Annaler* (Annales Archéologiques), published by the Royal Commission, 8vo, Copenhagen, 1812, pp. 133-145, 348-370.

or partially damaged, and the necessity of resorting to more efficacious measures was felt. By a Royal resolution of 22d December 1847, a new salaried member (Worsaae) was added to the Commission, and specially nominated as inspector, later on as director, to superintend the preservation of archaeological monuments, and by this title he received the Royal instructions, dated 20th March 1848.¹ A sum of money was annually placed at his disposal either for the purchase, the restoration, and reproduction of monuments by drawings, or for explorations and journeys, in which he was authorised to act in the name of the Commission.

Having become convinced that it was superfluous to prohibit the sale and export of antiquities (except *danefer*), it was agreed that the same liberal spirit must be used in obtaining possession of the national monuments; and in 1848 the Government did not think it right to carry out a project for applying the right of expropriation to these monuments in cases where the proprietors should be recalcitrant, or should demand an excessive compensation.

The inspector or director of archaeological monuments, lately created, after having worked eighteen months in concert with the Commission for the Preservation of Antiquities, until the dissolution of the latter in August 1849, was then placed in a completely independent position, and under most favourable circumstances. On the one side it was necessary to turn into freehold a number of leases which had belonged to the State foundations, fiefs, trustees, and to private individuals; on the other, increasing prosperity had developed a taste for the restoration of old castles, churches, and other remarkable ancient monuments.

I. Relative to the taking possession, in the name of the State, of groups of stones, sepultures, runic stones, fortifications, ruins of castles, &c., the Government decreed in 1848 that all monuments of this kind existing in the domains and forests of the State should be declared national property, and that, if any one should acquire parts of the public domain, these monuments should be expressly reserved by the State, and clearly defined

¹ It is printed in the *Antikvarisk Tidsskrift*, 1846-48, pp. 150-153, and in *Rescriptsamlingen af Ussing*.

in acts of sale. At this juncture the director of archaeological monuments visited the State lands to make a list and description of those that deserved preservation. On the proposal of the Archæological Commission (July 1848), the Ministère de la Justice invited the directors of religious foundations, the proprietors of fiefs and trusts, to make the same reservations in favour of the State in the case of the lease or sale of their property. Further, the Archæological Commission (8th July 1849), and later the director of monuments and of the museum (Nov. 1849), addressed printed circulars to all the proprietors of the kingdom to request them to make these provisions, and many of them undertook the duty with great goodwill and pleasure. In this manner, and without great outlay, a great number of ancient monuments, characteristic and important, have come under the protection of the law. Although in many cases the reservations expressed in leases and acts of sale had not been published clearly enough to avoid all disputes in the future, there would still be a base on which ultimately to support a claim. In the numerous tours which the director of ancient monuments annually made, sometimes accompanied by artists who measured and drew all kinds of monuments in the kingdom, and in his personal relations with the people, he acquired a large number of monuments for the State, some sold at reasonable prices, others presented even by peasants in humble circumstances. These journeys, which contributed essentially to remind the residents in different localities that such and such monuments had been declared the property of the nation, had also the result of causing more portable objects, such as runic stones, tombs, architectural fragments, &c., to be placed in safety, instead of being exposed to all risks, and they also were the means of important finds being deposited in the national museum.

By reason of the close connection between the direction of monuments and the Museum of National Archæology, in the archives of which had to be deposited all drawings of monuments and of antiquities made on the tours of inspection, it was agreed to prepare, to as great an extent as possible, archaeological maps of each parish, on which should be indicated the precise positions of monuments saved from the ravages of time, and

thus to furnish materials for the great archaeological map of the kingdom. For the information of the clergy, schoolmasters, and others who were willing to assist in this undertaking, there was distributed in 1849 a pattern, on which were marked the signs to denote the various classes of monuments; but as there were no funds granted for this work, which was left to private munificence, naturally enough archaeological topography progressed but slowly.

Notwithstanding the advance of the work of preservation, it was obvious that a director of monuments, residing at Copenhagen, might travel as much as he could, but that in course of time he would not suffice to inspect satisfactorily the numerous monuments scattered all over the country, and more exposed than ever to destruction in consequence of clearings of ground, restorations of buildings, construction of railways, &c. By a circular of November 20, 1866, the director of monuments applied to the keepers of the archaeological collections in the cathedral towns of Denmark (including Iceland), and proposed to them to form diocesan commissions, composed of such persons in the diocese as had greatest taste for archaeology, and to nominate diocesan inspectors to work, in concert with the central Direction in Copenhagen, for the preservation of monuments in each diocese. But, though the scheme obtained numerous adhesions, it was never put into execution for want of pecuniary resources; although it was very desirable that it should be, as it will probably be at no distant period. Notwithstanding this, well-founded complaints continued to be heard as to the destruction of national monuments, and as the direction had not funds sufficient to arrest these ravages, it addressed (through the Ministry of Culture and Public Instruction) the Danish Parliament, which had frequently shown evidence of its good disposition in this regard, and requested to have the means to make a complete inquiry, and to place under the protection of the law all the most important monuments of the country. The proposition, amply supported by evidence, was made on the 8th February 1873, and expressed the following desires:—

1. That an inquiry should be made as soon as possible as to all the monuments of antiquity remaining in Denmark.

2. That this inquiry be confided to archæologists and draughtsmen, who should plan, draw, and describe the most important monuments, especially such as were of sufficient importance to be placed for the future under the protection of the law.

3. That to arrive at this result, if it could not be obtained by other means, the Government should arrange with the proprietors to purchase the said monuments.

4. That a sum of 9800 francs be granted annually, for about ten years, to make these acquisitions.

These propositions were unanimously adopted by Parliament, as well for the financial year from the 1st April 1873 to 31st March 1874, as for the following years.

In consequence of these arrangements, the Direction of Monuments have been able, during the last few years, to send out several commissions of inquiry, each composed of an archæologist and a draughtsman, into the different quarters of the kingdom, where they have everywhere met with a good reception and willing assistance. Numerous monuments have already been purchased by the State, and many were offered gratuitously, partly by peasant proprietors. Besides the archæological maps which have been prepared, drawings of a great number of monuments have been made, which will be hereafter of inestimable value for the study of art in Denmark, and will, besides, have a more practical use in the restoration of ancient buildings, which is now being carried on throughout the kingdom to an extent hitherto unknown.

II. Private individuals, as well as the State, show great energy in the restoration of fortresses and houses, churches, and other buildings of mediæval and modern times. It is chiefly during the last twenty years that this movement has shown itself, chiefly in consequence of the development of a taste for art, of national sentiment, and of religious life, accompanied as they have been by a constant increase of prosperity. While formerly the architectural style adapted to certain edifices was a matter of small moment, or was entirely disregarded, the Direction of Monuments has endeavoured to preserve the original style in all buildings restored by the State, and

has, moreover, been met with the greatest readiness in this respect by all public institutions and large communes. With regard to restorations undertaken by private individuals, the Direction has confined itself to friendly advice, which has been generally very well received. It is comparatively rare for them to combat in vain against false styles, which are now almost entirely limited to the smaller places.

Among the large public buildings, for the restoration of which the State has allowed extraordinary grants, often very considerable during the last few years, may be mentioned the ancient tower, called Gaasetaarn (goose tower) of the fourteenth century, formerly part of the ruins of the castle of King Valdemar the Great at Vordingborg in Zealand, to the expenses of which a private benefactor has generously contributed; the remarkable Zealand castles of the style of the Renaissance—Rosenborg, Kronborg, and Fredericksborg, burnt in December 1859. For the last, however, the burden of the expense was borne by King Frederic VII., or was supplied by a national subscription. Apropos of royal castles, it must also be remembered that the Government has restored and ornamented in a suitable manner almost all the ancient royal sepulchres dispersed through the kingdom.

But incomparably more important is the restoration of the churches, which has taken place everywhere, so to say, for many of them, on account of their extent, could not be completed without great outlay and much difficulty. The establishment of the Reformation (1536), which deprived the churches, and especially the cathedrals and monasteries, of the greater part of their revenues, for a considerable time injured their architectural character. Very few of these edifices remained in the possession of the State; the greater number fell into the hands of those who paid the tithes, and many were given over to individuals with the tithes appropriated to their support, but on condition of their preserving them suitably. To force these to fulfil their obligations the State reserved to itself the duties of inspecting the churches, and confided this duty to the provost or chief minister of the canton, with several skilled workmen. But on the one hand these inspectors were generally void of all enlightened artistic

sentiment, and on the other, the tithes and other revenue belonging to the larger monasteries and cathedrals (with some exceptions, such as the abbey church of Sorø and the cathedral of Roskilde) were quite insufficient to cover the enormous expense necessary for the good preservation of considerable buildings. It is only on very urgent occasions, such as a fire, a falling in of the building, &c., that the churches received extraordinary assistance, coming either from general subscription or from a subsidy from the State, and as much as possible from the parish itself. Under such circumstances many of the most remarkable religious buildings would gradually fall into a deplorable state of ruin.

The law of the 19th February 1861, on the inspection of churches, was a great advance towards bettering this state of things; it fixed the general rules to be followed for the future for the restoration of churches in their original styles, and for the preservation of their furniture and monuments, and it reserved the power, for the benefit of the National Museum, of acquiring such articles as were out of use; and further, it directed the nomination of a special and competent committee of inspection of the most remarkable churches. This committee, which was composed of several of the best architects, with an experienced archæologist, and which exerted a great influence on restorations commenced or undertaken since, is presided over by the present Director of Monuments. A step not less important was the authority given to the Minister of Public Instruction to divide among the poorer churches the surplus of the receipts of the richer ones, which were placed as independent institutions under the direction of the diocesan authorities. Since then it has been at last possible to proceed with the urgent restoration of the churches without funds, and the more so that the State contributed towards it by extraordinary grants, the inhabitants of the respective parishes by an increase of rates, and private individuals by voluntary contributions. In this manner about 140,000 francs have been collected during the last few years for the restoration of the ancient monastic church of Maribo, in the Isle of Lolland, built in the commencement of the fifteenth century. In the same way the remarkable brick church of Kallundborg (Zealand), built in the

twelfth century, in the form of a Greek cross, has been restored with its five towers, of which the largest, that in the middle, had fallen down; the cost amounted to 170,800 francs. Next year the restoration of the cathedral of Viborg, in Jutland, which is entirely constructed of blocks of granite, and is of the twelfth century, will be finished, at a total cost of about 1,057,000 francs. After which will be undertaken the most ancient Danish brick church, that of the monastery of Ringsted (in Zealand), dating from about 1160, and the cathedral of Ribe, in Jutland, built in the Romanesque style in the first half of the twelfth century.

In Jutland the following restorations have been effected at the expense either of the churches themselves or of the parishes; the interior of the cathedral of Aarhuus built of bricks, originally Romanesque, of the thirteenth century, which has already cost 84,000 francs, and the exterior of which, in course of restoration, will require 280,000 francs.

In Fünen, the church of St Knud at Odense (built in brick, with a crypt recently discovered, of the pointed style), of the thirteenth or fourteenth century; the whole cost 358,000 francs.

In Zealand, the cathedral of Roeskilde (a brick building in the transitional style of the beginning of the thirteenth century), at a cost of nearly 420,000 francs.

The wealthy academy of Sorø, in Zealand, the property of the State, has, at last, restored at a great expense the imposing church of its ancient monastery, a remarkable brick building, of about 1170, and the still more ancient church of the village of Fjenneslevlille, of which it has the patronage; and the twin tower which was in a sad condition, has been restored to its original state.

In all these churches, the whitewash which covered the ancient paintings or mural decorations has been removed; the old altar pictures, the baptismal fonts, the epitaphs, the tombstones, the paintings, and other remains of antiquity, have been carefully restored and preserved. After what has been observed, especially of the village church of Fjenneslevlille, it scarcely needs to be said that the example of the restoration of the large churches has had a very good influence upon that of the smaller ones.

COPENHAGEN, *October 1875.*

VII.

TRADITIONS OF THE MACAULAYS OF LEWIS. BY CAPT. F. W. L.
THOMAS, R.N., F.S.A. Scot.

INTRODUCTION.

The Clan Aulay, a phonetic spelling of the Gaelic *Clann Amhlaeibh*, takes its name from *Amhlaebh*, which is the Gaelic form of the Scandinavian *Óláfr*; in Anglo-Saxon written *Aulaf*, and in English Olave, Olay, Ola.¹ There are thirty *Olafar* registered in the Icelandic Land-book, and, the name having been introduced by the Northmen to the Irish, there are thirty-five noticed in the "Annals of the Four Masters."²

In the 11th and 12th centuries, when surnames, if they did not originate, were at least becoming more general, the original source of a name is, in the west of Scotland, no proof of race; or rather, between the purely Norse colony in Shetland and the Orkneys, and the Gael in Scotland and Ireland, there had arisen a mixture of the two peoples who were appropriately called Gall-Gael, equivalent to saying they were Norse-Celts or Celtic Northmen. Thus, Gille-Brighde (Gaelic) is succeeded by Somerled (Norse); of the five sons of the latter, two, Malcolm and Angus, have Gaelic names; two have Norse, Reginald and Olaf; and the fifth bears a Gaelic name, *Dubhgall*,³ which implies that the bearer is a Dane. Even in Orkney two of the sons of Havarð are Hakon and Thorstein, but the third is *Dufniall*, i.e., Donald.⁴ Of the Icelandic settlers, Becan (Gaelic) may

¹ "Óláfr," m. "Olave, an old and favourite proper name; the oldest form seems to have been *Aleifr*, from *Auleifr*, as seen from rhymes."—Vigfussen, "Ice. Dic.," *sub voce*.

² In modern Irish, the names Clanawlay, Macaulay, include both Macaulay = Mac-Amhlaeibh = Olafsson;—and Macaulay = MacAmhalghaidh = son of Amhalgaidh, who were a Gaelic tribe from Tiraulay, Mayo.

³ So says Dr Todd; but Mr Skene has pointed out that the personal name is *Dubhgal*, and corresponds to Aedgal, Aelgal, Angal, Aridgal, Arigal, Bedgal, Congal, Congal, Domgal, Dubhgal, Feargal, Fingal, Gormgal, Leargal, Maengal, Riagal, &c.

⁴ Anderson's "Ork. Saga," p. 23.

have found it convenient to leave Dunvegan (*Dun-Bheacain*) in Skye, and remove to Bekaustaðr; and many others with Gaelic names are pointed out by Vigfussen.¹

In the mythological history of Lewis the Macaulays are the descendants of Amhlaebh, one of the twelve sons or near relations of Oliver (Olvir Rosta?),² among whom Lewis was divided. Oliver was the eldest son of that Norwegian king who had the Isles and Highlands given to him by a son of Kenneth MacAlpin for his assistance in driving his brother from the kingdom of Scotland.³

The tradition in Ness⁴ is that "the first Macaulays came from Lochlinn and settled in Uig when the first Macleod came;" and in Uig, the headquarters of the Macaulays, "John Roy [his grandson was living in 1610] is the first of whom any account is given in the traditions of the Macaulay race; he was the grandson of Magnus, King of Norway [who was killed in 1103!]. It is with great interest and anxiety the Macaulays of Lewis talk over the tradition of their descent from the royal family, and commence their history at the time when Niel Morrison [*recte* Old Norman Macleod] possessed the island of Pabbay and *Baile na Cille*,—and the Macaulays Reef and Valtos."⁵

There is no real tradition as to the eponymus or *primus* of the Macaulays. The "Indweller" of Lewis, who wrote between 1673 and

¹ Ice. Dic., p. 800.

² *Olvir Rosta*, i.e., Olvir the Turbulent, was the son of Thorliót in Rackwick, Westra, Orkneys; and grandson of Frákork, the wife of Liót Niding, who dwelt in Helmsdale, Sutherland; and Olvir Rosta was brought up there. It is told that (*ante* 1136) Frakork and Olvir went to the Isles, whence they brought twelve ships, all small and not well manned. With these there was a sea-fight in Deersound, Orkneys, where they were defeated by Earl Paul. Olvir Rosta, when returning from a viking-raid, burnt Olaf, who had contributed to his defeat, in his house at Duncansby. Svein, the son of Olaf, in revenge came suddenly to Helmsdale, burnt Frakork, but Olvir escaped over the Fells and on to the Isles, and nothing more is known of him. Anderson's "Ork. Saga," *passim*. *Olvir Snæice*, i.e., Olvir the Hewer, appears in the burlesque genealogy of the Macleods. Can it be that the memory of Olvir Rosta has survived in Lewis?

³ Rev. J. Strachan, Barvas.

⁴ Angus Gunn, North Dale.

⁵ Rev. M. Macphail, from Notes by Mr Murdo Morrison.

1688, states that the first and most ancient inhabitants of Lewis were three men of three several races; first, Mores (the eponymus of the Morrisons), who was said to be a natural son of a king of Norway; second, "Iskair MacAulay, an Irishman, whose posterity remain likewise to this day in the Lews." The third was MacNicol, from whom the Macleods became dominant in Lewis by marriage with his daughter.

This is in effect an acknowledgment of his ignorance of the original of the Clan Macaulay, and goes back only to the time when the name of Zachary was introduced into it. The writer, who I suppose was the Rev. John Morrison, afterwards minister of Urray,¹ is also ignorant of the original (Gille-Mhuire) of his own clan, but has been too honest to invent in either case.

Dr George Mackenzie² states that "the Macaulays of the Lewis derived their pedigrees from Olaus, who was put in possession of the Lewis about the year 1174, and who was afterwards King of Man." This I believe to be a historical induction which has supplied—as with many other clans—the want of real tradition, so that it is now widely asserted by the islanders at the present time that the *primus* of the Macaulays was Olaf, son of Godred, King of Man and the Isles.

In 1188 Reginald, the elder brother of Olaf, became King of Man, and Olaf,³ who was then fourteen years of age, had Lewis (which probably included the whole Long Island or Outer Hebrides) in appanage. In 1202 Olaf was in Sanday (*Sandarey*, Barra; or Sand (*Saudar*), North Uist).⁴ Afterwards he became discontented with his share of the revenues of the kingdom of the Isles; for although Lewis was larger than any other of the islands, yet it was but thinly inhabited, and was almost altogether

¹ Proc. Soc. Ant. Scot., vol. xii. p. 535. There is an interesting note concerning the Rev. John Morrison, Urray, in the "Highlander" of 18th July 1879, from which it appears that he died on the 1st June 1747, in the forty-eight year of his ministry.

² Hist. Mackenzies, MS.

³ Olaf Svarti is sometimes named Olaf the Red by the antiquists of the Isles, who mistake him for his grandfather. Magnus, the son of Olaf Svarti is called Magnus MacOlave Duff.—"Cal. Irish Doc.," p. 479.

⁴ Vigfussen's "Sturl. Saga," vol. ii. p. 292.

mountainous and rocky, and quite unfit for cultivation. Olaf represented to his brother that the revenues of Lewis were not sufficient to support himself and his followers. But Reginald, having consulted his council, who no doubt detected some political motive in the request, seized Olaf and sent him to William, King of Scotland, by whom he was detained prisoner, of course for some offence committed against the Scottish realm.¹

On the death of William, in 1214, Olaf was set free; he then returned to Reginald in Man, who received him in peace, and from thence he went on pilgrimage to St James at Compostella (which hints at the committal of some great crime). When he came back to Man, he was married to Lauon (Lavon, for *Lamhfhinne*, Gaelic, = White-handed), who was the daughter of a chief in Kentire, and half sister by the father's side of the wife of Reginald. Olaf and his bride now returned to Lewis, and we hear no more of them until between 1217 and 1223, when Reginald, bishop of Man and the Isles, and who was the son of a sister of Olaf, came to make a visitation of the churches in Lewis. Olaf had prepared a feast to which he invited his nephew, but Reginald refused to meet him, unless he put away and divorced his wife, Lavon, on the plea that he had formerly been living with her cousin in concubinage. It is plain that, at this period and subsequently, the clergy were endeavouring to enforce on the Gall-Gael the form of a religious ceremony of marriage,² but we know that to a late period the marriage tie was but little respected, and that a fruitful source of quarrel between the clans was the practice of sending back a lady to her friends when her husband was displeased with or tired of her;³ hence, too, the summary way in which the seniors of a clan are deposed by the antiquists of the junior branches, that is, by declaring them all to be illegitimate.

¹ Olaf was then thirty-three years old, and perhaps had conspired with the Macwilliams.

² In 1176 the Legate Vivian married Godfred, King of Man, to his wife, Fingola, the mother of Olaf Svarti; Olaf was then three years old. Munch's "Chro. Man.," p. 13.

³ So late as 1601 a devastating war took place between the Macleods and Macdonalds in Skye from this cause.

Olaf, on this frivolous pretence, was divorced from his wife, when he appears to have lost no time before marrying Christina, the daughter of the powerful Makintagart, otherwise Ferchard O'Beolan, who had been created Earl of Ross by Alexander II. When the news of this divorce became known to the wife of Reginald, Queen of the Isles, she was moved to great wrath and bitterness. Her son Godred Don¹ was then living in Skye; she sent him a letter, in the name of King Reginald, directing him to seize and slay Olaf. Godred prepared to execute this request, and crossed to Lewis with an armed band; but Olaf, having heard of his landing, escaped from the island in a small boat to his father-in-law, the Earl of Ross. Godred having despoiled nearly the whole of Lewis and slain some men, returned to Skye.

At that time (1223) a valiant and powerful chief, Paul Balkason (*Pál*, the son of *Bálki*), was sheriff of Skye. He had refused to assist Godred in his raid on Lewis, and fled, to avoid his vengeance, to the Earl of Ross. There he met with Olaf, when they entered into a bond of mutual friendship and support, which was confirmed by oaths. They came together in one ship to Skye, where they concealed themselves for some days. Having learned that Godred was living unsuspectingly and with few attendants, in St Colm's Isle (*Trodda*),² they collected their adherents in five vessels, and, under the silence of midnight, put off from the nearest shore, crossed the sound, which is but a mile and a half broad, and surrounded the island. Godred, and those who were with him, rising at break of day, and seeing themselves surrounded by enemies, were struck with dismay; being well armed, they made a brave resistance, but in vain;—for about the ninth hour of the day Olaf and the sheriff, Paul, gained possession of the

¹ *Donn*, Gaelic, *brown*. The common speech must then have been Gaelic, although Norse personal names survived.

² "The Isle *Troda* lies within half a league to the northernmost point of *Skye*, called *Hunish*; it is two miles in circumference, fruitful in corn and grass, and had a Chappel dedicated to St Columbus" (Martin's "West. Isles," p. 166). *Trodda*, which gives name to Trotternish, is *Trold-ey* = Giant's-isle; from *trold*, Dan. *troll*, Ice. = giant, Titan, &c.; and *ey*, Ice. = island. The columnar basalt, which occurs abundantly in this district, is supposed to have been the work of giants. So far as I know tradition is silent as to Norse events.

island, and having slain all whom they found outside of the church wall, Godred was seized, blinded, and mutilated.¹

In 1224 Olaf took hostages from all the chiefs of the Isles and went to Man, of which, after sundry battles, he became king in 1226.²

Such is the story of Olaf Svarti, King of Man and the Isles, so far as relates to Lewis, but of whom there is no tradition whatever on the island. The shenachies or antiquists could tell with considerable accuracy the succession of the Clan Kenneth, and something of the disorders which preceded their coming, but they had only a hazy recollection of the dominion of the Macleods, and in fact the inevitable "son of the King of Lochlinn" is reached in two generations. Of course it cannot be proved that Olaf Svarti was not the *prætor* of the Clan Macaulay; indeed, there can be little doubt that there were Macaulays in Lewis after Olaf's long sojourn there, but it is shown that Olaf was unknown to the "Indweller" of Lewis in 1678-1688, who, not being acquainted with the "Chronicle of Man," has, according to a fashion of a previous time, traced the origin of the clan to an Irish source. In 1592 the Lyon King of Arms and his brother heralds are commissioned to visit the arms used in the country, and inhibit unauthorised persons from bearing arms; and in 1672 all persons bearing arms were to send to the Lord Lyon an account of their arms and descent within a year.³

This has been the cause of a plentiful crop of family histories, which date from and after those times. The compilers of these histories were often men of ability and learning, and having recourse to printed books and written documents endeavour to reconcile facts with the traditions of

¹ The blinding does not appear to have been very effectual, for he is found afterwards in Norway and also sharing the kingdom of the Isles with Olaf; and with regard to the mutilation, Harold, the son of Godred Don, was King of Man in 1249. The Earl of Cromartie makes the Macleods to descend from this Harold. The Icelandic Annals state, at 1223, that Olaf Gudrodson, King of the South Isles, blinded Gudrod the son of his brother Rognvald, King of Man (Vigfussen's "Sturl. Saga," vol. ii. p. 369). There is a confused tradition that Godred was blinded by the hermit MacPoke, *i.e.* Balkason.—"Coll. de Reb. Alb.," p. 284.

² Munch's "Chron. Man.," pp. 16-18.

³ Act Parl., Index.

their clans. Hugh Macdonald, the historian of the Clan Huistein (or Macdonalds of Sleat) quotes Camden and Buchanan; Sir R. Gordon names a long array of books and MSS. as the foundation of his account of the earldom of Sutherland and George Mackenzie, first Earl of Cromarty, has translated a large part of the "Chronicle of Man" in support of his theory of succession, and, by supplying the "missing links," has made his case very clear indeed. But it is manifest such authorities must be accepted with great reserve; their primary object was the glorification of the family they represent, for which purpose every fact which does not tend in that direction is suppressed or misrepresented. Had they recorded the traditions of their clans, as is done in the Icelandic Sagas, without regard to the effect they would have upon the reputations of those concerned, we should now have a valuable stock of material from which the truth could be worked out. Occasionally they act the part of candid friends to each other, when, although the assertions are often erroneous, evidence is afforded of the motives of the writers. Generally the minor clans, to whose combination the larger ones owe their existence, are ignored as much as possible; and those who read the various histories of the Sutherlands and Campbells would hardly suppose that any other names had ever been known in those extensive earldoms; or, from the chroniclers of the Mackenzies, that that clan was made up of M'Kenzie's, M'Ras, Murchiesons, M'Lays, M'Lennans, Mathewsons, M'Aulays, Morrisons, M'Leods, &c.¹

But there is historical proof that a Macaulay was settled in Lewis before the advent of Olaf Svarti, for Gunni Olafson, the brother of Svein of Gairsey, having incurred the displeasure of Harold Maddadson, Earl of Orkney and Caithness, for living in concubinage and having children with his mother, Margaret, Countess of Athol, was banished in 1154 from his dominions. There was then a chief in Lewis, Liotolf by name—no doubt the *primus* of the Macleods—with whom Svein had formerly been staying, and who was his friend, perhaps his relation. So Gunni Macaulay was sent to the care of Liotolf in Lewis, but we hear nothing more about

¹ Jameson's "Burt's Letters," vol. ii. p. 322.

him.¹ And although Gunni Olafson settled in Lewis and introduced the name of Macaulay (Olafson) there, the fact is scarcely sufficient to establish the origin of the Clan Macaulay in the entire absence of any further traditional or historical authority.

A list was supplied to me by the late Sir James Matheson—who was always ready to give a generous assistance to either scientific or social progress—of the clan-names, in the order of their numbers, and the number pertaining to each, of all the inhabitants of Lewis at the census of 1861, when the whole population was 21,059. This document will be of great service to the future historian of Lewis, not only for the facts it contains, but also for the lines of research it suggests as to the numerical position of the various clans inhabiting that country; it is in fact the algebraic sum of the ethnological history of Lewis, which is too wide a subject to enter upon here in any detail. But, as bearing on the present subject it is to be noted that, generally, the most numerous clan-names are those which are or have been located on the opposite coasts of Sutherland, Ross, and Inverness; thus the Mackays (837), who stand seventh on the list, were in Strathnavir, but from thence they spread over the north-west of Sutherland; the Macleays (30), with whom are included the Beaton (44) and the Bethunes (32), a small, ancient, and once powerful clan, had their seat at Melness, Tongue, but had also almost all the islands on the Ross-shire and West Sutherland coasts;² the Morrisons (1402), the fourth in point of numbers in Lewis, possessed Duirness and Ashir.³ The Macleods (3838), who are naturally the most numerous in Lewis, for they were there before history began, had also Assynt and Coigach; the Macivers (1198), fifth on the list, whose numbers have been largely increased by what may be called a secondary immigration as allies of the Mackenzies, had their headquarters at Lechmeln, Loch Broom; the Mathesons (376), thirteenth in the list of Lewis clan-names, were an

¹ Anderson's "Ork. Saga," p. 154. I had almost forgotten to note that Svein himself was a Macaulay, but after the burning of his father Olaf, he took his name from his mother, Asleif.

² Proc. Soc. Ant. Scot., vol. xii. p. 547.

³ Traditions of the Morrisons (Proc. Soc. Ant. Scot., vol. xii. pp. 503-556).

ancient and powerful clan settled on Loch Alsh; the Mackenzies (1482), the third on the list, originating obscurely in Kintail, by matrimonial alliances or unscrupulous ability and exertion—and having brought about the ruin of the Macleods, obtained their patrimony—were at one time possessed of nearly the whole of Ross-shire. The Macdonalda (2510), the most numerous tribe-name after the Macleods in Lewis, represent many different clans, such as clan Huistean, Clanranald, Glengarry, Macean, Lochalsh, &c. The family of Macdonald were Earls of Ross from about 1402 to 1477; and the Macdonalds of Lochalsh held the lands of Lochbroom, Lochcarron, and Lochalsh in 1463. If we pass south-west, in Harris we find the Siol Thormuid¹ (Macleods) stretching east and west, from St Kilda, through Harris and Inuirness in Skye to Glenelg; the Clan Huistein in North Uist, Trotterness, and Sleat; the Clanranald in South Uist, and also on the opposite shores of Inverness-shire; and lastly, the Macneals in Barra, and again in the southern Isle of Giga, perhaps also in Kintyre.

It is therefore not surprising to learn from the traditions of the Mackenzies, that the Macaulays were once dominant in Lochbroom,² and this receives an unexpected confirmation when we recognise that Ullapool is the phonetic spelling of the Gaelic pronunciation of *Olabol*, the representative in modern English of *Olafs-bolstaðr*, Norse, *i.e.*, the homestead of Olave.³ It is told by Dr G. Mackenzie that the ancient inhabitants of Kintail, the MacIvors, MacAulas, MacBollans, and Clan Tarlich, are all descended from Norwegian families, and his theory of the origin of the Clan Macaulay in Ross is as follows:—"After the Isle of Man was subjected to Scotland, hostages were given for their good and peaceable behaviour for the future. And

¹ Thormoðr strangely corrupted to Norman, by suppressing the Th, and adding N.

² Lochbroom is a corruption of *Loch Bhraoin*, Gaelic, = Misty Loch. This is the name of a small lake on the river of the same name. The Norse name of the large fiord, now called Lochbroom, is unknown. *Myrkrafjörðr* has been proposed; but surely that name belongs to the Linn dubh, the Dark Linn, corruptly called Loch Linnhe.

³ The locations of the Norse settlers in Scotland can be easily traced by the terminations *bol*, *dal*, *fjörðr*, and many others. On this subject see *Proc. Soc. Ant. Scot.*, vol. xi. pp. 472-507.

among these was a kinsman of Olaus¹ of the same name, who, having the Norwegian language, and becoming a favourite with King Alexander, made him overseer of the north coast towards Lochbroom, and gave to him and his successors the lands of Lochbroom. He lived in the troublesome times of the Bruce and the Baliol, and was succeeded by his son, called by our Highlanders, Duncan MacOlaus, that is, Olaus's son, now Englished MacAulay. He married MacIvor in Kintail's daughter, a vassal of the Baron of Kintail's, who derived his pedigree from Ivarus, eldest son to Ragnald, Earl of Orkney, by Rochholda [Ragnhild?] his wife, daughter to Rofla Nosia, a powerful man in those days, as we learn from Torfœus (lib. i. chap. vii.) in his "History of the Orkneys." He [Duncan] lived in the beginning of King David's reign, and upon the Earl of Ross's murdering the Baron of Kintail he joined the Kintail men against MacGillandries and his son. Murloch [the son of Duncan MacAulay] was made governor of Island Dunan [Elandonan] during the Baron of Kintail's minority and absence in the Lewis. This Duncan MacAulay was murdered by MacGillandries, and his lands possessed by him. But upon the Baron of Kintail's return, MacGillandries being killed, as we have before observed, his son Murdoch was possessed in his lands of Lochbroom. He married one Isabel MacAulay, a Lewis woman, descended of the MacAulays of the Lewis, who derive their pedigrees from Olaus, who was put into possession of the Lewis about the year 1174, and who was afterwards King of Man, as we have shown in the account of the Macleods. [This account is not in my copy.] This [Murloch] MacAulay had one daughter called Isabel, who, as we have seen, was married to the Baron of Kintail, and with whom he got the lands of Lochbroom, and who bore to him his son and successor, the sixth Baron of Kintail."²

"Murdoch, the sixth Baron of Kintail, by Isabel Macaulay, heiress of Lochbroom, succeeded to his father about the year 1375, and was called by the Highlanders Murchig in Droit [*Murchadh na Drochaide*], or

¹ Olaus, King of Man. Dr G. Mackenzie here takes for granted that the people of West Ross spoke Norse.

² Dr G. Mackenzie's "Hist. of Mackenzies," MS.

Murdoch of the Bridge, from a singular [accident] which happened to his lady at the Bridge of Scatwell." ¹

Previously Dr G. Mackenzie had written that "the garrison of Lochbroom was commanded by Duncan MacAulay;" and that "MacAulay, Governor of Lochbroom, sends him [Murachig Dow, or Black Murdoch Mackenzie] to the Lewis, to be under the Government of his Grandfather" [Macleod of Lewis]; but "Leod MacGillandries, a vassal of the Earl of Ross's, made constant incursions upon the land of MacAulay of Lochbroom, who had placed his son Murdoch governor of Island Dunan and the lands of Kintail, and [Leod] having in one of these adventures killed [Duncan] MacAulay of Lochbroom, he became in a manner master of both these countries, but still the garrison of Island Dunan kept out and frequently killed many of his followers."

The Earl of Cromartie also states that Murdoch Dow "married a daughter of M'Caula of Lochbroom. This M'Caula was killed by Leod M'Gillanders, so the first right of the lands of Lochbroom and Coigeach fell into Murdoch in right of his wife." ²

The Earl of Cromartie in his old age wrote, or rather dictated, a much more extended history of his clan; he there says that [Murdoch] Macaulay, constable of Islandona, fetched back Murdo Dow [Mackenzie] from MacCoul of Lorne, with whom Murdo Dow had been fostered, and protected him from his bastard brothers, but that, all his estate being wasted, he had recourse to his brother-in-law, M'Aula of Lochbroom (who is made to appear as a different person from the constable of Ilandonan), who was oppressed by Lesly, Earl of Ross. And "M'Aula of Lochbroome, shairing now in the feud, they [the Earl of Ross and Donald of the Isles] hound out Leod M'Gillandris, a depender of the Earl of Ross, and possessor of several lands in Strathcarron [East Ross] and some in Strathokell, to invade Lochbroome, which he did with such success that he kild M'Aulæ, and possest his lands of Lochbroome and Cogiach, where by that family edit. M'Aula leaveing no childrein but the

¹ Dr G. Mackenzie's "Hist. of Mackenzie," MS.

² Genealogy of Mackenzies, p. 6.

daughter married to M'Kenzie (for so the laird of Kintail wes and is called by the Highlanders), and the estate holding of the Earl of Ross, the Earl disposed the samen in lyferent by tack to Leod, albeit Murdo M'Kenzie acclaimed it in right of his wyfe (and indeid we find few or no tailyed charters at that tyme). M'Kenzie distroyed in himself and his freind, fled to his vncl

M'Leod of Lewis, leaveing Illandonan weill fortified, and send oftymes wictual to it by sea from the Lewis, but wariing of so unactive an exile and precarious lyvlyhood, he procured a party of sex score men from his vncl, and two longe boatts, wherewith comeing into Invereu in Lochbroome, other say to Kisseran in Loch Carron, and accompanied with his cossing german,

M'Leod, he gets intelligence that Leod had appoynted a rendivoz at Kenlochow, twelf miles distant the next morneing, with intention to gae and beseidge Illandonan. M'Kenzie seazes all persoons he meitts with, and marches all night vp by the syd of Lochmouri (so called from ane island in it wher Mouredus lived a hermit), and comeing by the dawne in ane hervest day to the place of randevouz, all who were assembleing, mistaiking him and his people for a pairt of themselves already rendivoized, still as they came he seazed them, and amongst the first Leod himself and his son Pawll, but carrying calmly till he had seazed them all. He then offered this oppressor to the memory of his brother-in-law, formerly killed by Leod, and execut him at Kinlochow, at a place in Achiluask,¹ called to this day

¹ Dr G. Mackenzie's version of this romance is as follows:—"The Baron of Kintail having arrived at the Age of Manhood, he returned from the Lewis with several boats or birlinns well manned, and having landed at a place called Saunehchan in Kissern he was informed that Leod MacGillandries had appointed a match of Hunting at Kanlochow upon which he marched straight with the men that had come alongst with him there, and having staid all night in a wood, early next morning he came to a place called Aghna Kean¹ (*Ath nan ceann*), that is, the Ford of heads which was the place appointed to meet at, and not having heard of his arrival he had the opportunity of taking them all prisoners as they arrived in small parcels suspecting no danger, and at length MacGillandries coming, fell into the same snare and was killed; but his son Paul was taken prisoner and was afterwards set at liberty upon promising of his peaceful behaviour."—MS.

¹ *Ath nan Ceann* crosses the river at the farm of *Ach nan Ceann*, about half a mile from the east end of Loch Maree.

Fe-leod¹ (*Faiche Leoid*), that is, Leod's *myre* [*recté*, field], and possessing himself with Lochbroome in his wyfe's right, the only child leiving of M'Aula, he disposed of Coigiach to his cossigne M'Leod, for his notable assistance in his distress; which lands they both retained, but could obtaine no chartours from the Earls of Ross, of whom they held, the Earls of Ross pretending that they fell to themselves in defect of an aire-male, the other retaineing possession in right of his wyfe, as aire of lyne."²

On turning to history we find Paul MacTyre is on record 1350-1372. In 1365 Hugh of Ross, Lord of Fylorth, the brother of William, Earl of Ross, granted to Paul M'Tyre and to his wife Mariot of Grahame, the niece of Hugh of Ross, and to their heirs, with remainder to Paul's heirs by any other wife, and to his brothers and their lincal descendants the lands of Tuttimtarvak, Turnok, Arnot, and Langvale in Strathokel;³ and in 1366, William, Earl of Ross, Lord of Skye, granted to Paul M'Tyre, and his heirs by Mary of Grahame, with remainder to the lawful heirs of Paul, the lands of Gerloch, within the parts of Argyle, for yearly payment of a penny of silver in the name of blench firme in lieu of every other service, except the forinsec service of the king when required. In 1372 the grant was confirmed by King Robert II.⁴

According to legend Paul M'Tyre "was a takand man," and conquest all that he had through captainry and sword. He "reft Strahocill, Strathavvon, and Fleschillis, with mekill of Sutherland; caused Caithness pay him meikill black maill." It was said that Paull M'Tyre himself took nine score kyne yearly out of Caithness for his black maill, so long as he himself might travel. This Paull M'Tyre had two sons, viz, Murthow Reoche and Gillespick. The said Murthow was sent to Caithness "with

¹ "Fe-leod is on the top of the hill due south of the inn at Kinlochewe, and a mile or two to the west of Glen Docharty, where there is a small lake called Loch Fe-leod. The coach road between Kinlochewe and Achuasheen passes through Glen Docharty.

—Mr W. Reid, Isle Ewe.

² Fraser's "Earls of Cromartie," vol. ii. pp. 467-468.

³ Or. Pr., vol. ii. p. 411.

⁴ *Ibid.*, p. 406.

ane hoist to tak up custom kyne." The country folks assembled themselves together at Spittalhill, and slew the said Murthow Reech beside the heidloch, betwixt Yule and Candlemas. His brother Gillespick, hearing of his brother's slaughter, left the country and went home to his father, who was founding a house in Creich. He died for displeasure of his son. Thereafter, his friends sent for the said Murthow Roeche, his bones.

" This Murthow Reech of whom now ye do reid,
 Throw tyrannie wes slane as ye hier tell,
 The eldest sone of Paull M'Tyre, indeid,
 Was buried in Caithnes quhair the caise befell.
 Quhen frendis thairefter tuik theme to counsell,
 And send in haist ane young man for his baines,
 Quha comming hame with them on Helmsdail,
 Drownit thairin he and they all at aines."¹

Murdo Reech appears to have left no legitimate children, as Catherine, the daughter of Paul, succeeded to his estates, and carried them to Walter Ross of Balnagown in 1398.

In the dubious narrative of the Earl of Cromartie, "Murdo Riach" is made to be a natural brother of Murdo Dow Mackenzie; but if the necessary correction is made the paragraph is of some interest. "He was a young man [*i.e.*, Murdo Riach] of a feirce and barbarous nature, loweing warr and action better than peace and queyt, who, contracting a freindshipe with Pawl, sonne to Leod, who wes prisoner, he procured his liberty, from his brother, on conditioun he should resigne his tack in M'Kenzie's favours; on which termes he wes demitted, and evir after Murdo Riach and Pawl observed a perfect freindshipe, for Paull [Leod's] sonne coming shortly thereafter to the age of man, he desyred to mak a spoill on some neighbouring country, a barbarous custome, but most ordinary in thes dayes, as thinking therby to requira reput of valour, and to become formidable, the greatest security amidst ther unhappy feuds. This ther prentice sey or first expeditione wes called in the Irish *creach vachtin* [*Creach mhacaibh*]

¹ Chron. Earls of Ross, p. 52.

the young man's her ship.¹ Whither Paull was incited to this by Murdo Riach or not is not known, but assisted by him he was. The place they pitch on for depredation was Caithness. So levying such force as they could, they obtained peaceable passage through Sutherland, and falling into the braves of Cathnes they robbed the country, drove away multitudes of cattle, and returned in safety home. After which Murdo Riach never paid his brother's kindness so affectionately as formerly, nor did Paull or he ever resume that peaceable deportment which had been fit for good men, but put up with success they frequently spoiled Cathnes, till at last Murdo Riach was killed at in Caithness, and his two-handed sword since that time kept by Burd of Tottinga² till Kenneth, now Earl of Seaforth, had it from him in 1688. Of this Murdo Riach are descended the race called Slight³ Vurchie Riach [Murchisons?], a people who retained much of the nature of their forefather, tho restrained by law and good government, and are numerous in Lochbroom, Cogiach, Sutherland, and Lewis."⁴

According to Sir R. Gordon, "Paul-Mactire was a man of great power and possessions. In his time he possessed the lands of Creich in Suther-

¹ "Every Heir, or young Chieftain of a Tribe, was obliged in Honour to give a Public Specimen of his Valour, before he was owned and declared Governour or Leader of his People, who obeyed and followed him upon all Occasions.

"This Chieftain was usually attended with a Retinue of Young men of quality, who had not beforehand given any proof of their Valour, and were ambitious of such an opportunity to signalise themselves.

"It was usual for the Captain to lead them, to make a desperate Incursion upon some Neighbour or other that they were in feud with, and they were obliged to bring by open force the Cattle they found in the Lands they attacked, or die in the attempt.

"After the performance of this Achievement, the young Chieftain was ever after reputed Valiant, and worthy of Government, and such as were of his Retinue acquired a like reputation. This Custom being reciprocally used among them, was not reputed Robbery; for the Damage which one Tribe sustained by this Essay of the Chieftain of another, was repaired when their Chieftain came in his turn to make his Specimen; but I have not heard an instance of this practice for these sixty years past" [*i.e.*, since 1640].—Martin's "Western Islands," pp. 101, 102.

² "Budge of Toftingal."—Genealogy of Mackenzies, p. 6.

³ *Sliochd*, *i.e.*, race, descendants.

⁴ There were no Murchisons in Lewis in 1861; they had probably affiliated with the Mackenzies.

land, and built a house ther (called Doun-creich), with such a kynd of hard mortar, that at this day it cannot be knowne wherof it was maid.¹ As he was building this hous and fortresse, he had intelligence that his onlie sone was slain in Catteynes, in company with one Murthow Reawich, ane outlaw and valiant captane in these dayes; which maid him decist from further building, when he had almost finished the same. Ther are many things fabulousslie reported of this Paull-Macktire among the wulgure people, which I doe omit to relate."²

But it is probable that the architectural genius attributed to Paul, who has been credited, as above, with the construction of vitrified forts, was really due to his father; for Paul MacTyre, when written in Gaelic, is *Paul mac an t-Saoir*, pronounced and written in English Macintyre, and implies "Son of the Artificer."³ According to the traditions of the Mackenzies the name of Paul's father was Leod, and the "Chronicle of the Earls of Ross" has Leandres, *i.e.*, Gilli-Andreas for Paul's grandfather; but this may have been the clan-name, the modern Gilanders. I observe that "Isac Macgillendres" is a witness, *circa* 1275, to a Beaully Charter, along with William, Earl of Sutherland;⁴ and again, in 1278, "Isac Macgillendris" witnesses another charter with William, Earl of Ross.⁵ This implies that the Clan Lendres held a high position in Ross or Sutherland,—perhaps in both. Isac seems to have been the grandfather of Paul: and the father of Isac was "Gillandes Macysac" who witnesses a charter in 1231.⁶ Tradition tells that—"There where three sons of the King of Denmark, called Gwine [Gunn], Loid, and Leandres [Gillanders], who came by sea

¹ "On the top of the Dun of Crieich, a hill of a great height above the level of the sea, and rather jetting out into the Firth, there are the remains of a rampart. The walls have been cemented with a vitrified stuff, something similar to the refuse of iron in a smith's forge. The cement is as hard as a rock. It is said that this rampart was begun to be built in the 12th century, by a *Paul M' Tier*, a branch of the noble family of Ross."—"O. S. A." vol. viii. p. 373.

² Sir R. Gordon's "Earls of Sutherland," p. 36.

³ Of course this is mere conjecture. The Gaelic genealogy has *Paul ic Tire*.—Cal. de Reb. Alb., p. 54.

⁴ Batten's "Chartulary of Beaully Priory," p. 61.

⁵ *Ibid.*, p. 64.

⁶ *Ibid.*, p. 33.

out of Denmark, and landed in the north of Scotland to conquest lands to themselves by the sword. Gwine [Gunn] conquest the Highland brayes of Cathness. Loid conquest the Lewes, of quhone M'Loid hus is descendit. Lendres conquest Bray-chat [Strathcarron, &c.] by the sword; qlk the Earl of Southerland, and the lairds of Duffus and Foulis bruiks now with the parochin of Creich, Stracharron, and Strahoykill, and Friewater; his hall being within Glenbeg, qlk was and is the laird of Balnagounne his heritage."¹

The form of the name *andreas* is Norse as well as Gaelic, and I suspect that the mythical King of Denmark, who had the three sons, Gunn, Leod, and Gillanders, was the baron-freebooter Svein, who held lands in Orkney and Caithness (and sometime in Man); for Svein was the brother of Gunni, the father of Andreas, and the friend, *vinr*, perhaps relation, of Liotolfr, in Lewis.²

In 1331 David II, a child of six years, was crowned at Scone, and Randolph, Earl of Moray, became Warden of Scotland. In the same year the Warden came to Inverness, from whence he sent his "crowner" to Elandonan to prepare the castle for his reception and to arrest "misdoars," fifty of whom that officer put to death, and placed their heads on the top of the castle walls.

"The Wardan,

Off that sycht he was rycht blyth;
And till his court he yhed rycht swyth,
And off the lave that entryde ware
Justyce he dyde evynlyk thare.
Bot hym mystryd noucht to call
Thame, that flowryd sa well that wall:
Feware thai ware noucht than fyfty.
Hevyddis grynnand rycht wgly."³

Unfortunately there is no record to whom the heads belonged, nor of their misdoings.

¹ Chron. Earls of Ross, pp. 30, 31.

² Anderson's "Ork. Saga," *passim*.

³ Laing's "Wyntoun's Chron.," vol. ii. p. 380.

In 1333 Hugh, Earl of Ross, was slain, and was succeeded by his son William, the third of that name, who had a long reign of thirty-nine years.

In 1342 William, Earl of Ross, granted Kintale to Reginald, son of Roderic of the Isles; but in a quarrel at Perth Reginald was killed by Earl William in 1346, when Annie, the sister of Reginald and the first wife of John of Isla, succeeded to his lands. Thus Kintail was confirmed to the rule of the Macdonalds; yet in 1350 William, Earl of Ross, dated a charter at Elandonan, and in the same year Earl William appointed, at the instance of his nobles, Hugh of Ross to succeed him, if Earl William should have no male heir. About this time Hugh of Ross got in exchange for some lands in Buchan from Earl William, his brother, the lands of North Argyle, that is, Wester Ross, with the castle of Elandonan. But in 1370 Hugh of Ross was dead, without legitimate offspring, and his lands returned to his brother, Earl William.¹

Earl William had two daughters; the eldest, Euphame, was married to Sir Walter Lesley, and in 1370 Earl William got a new charter of the earldom, giving female succession without division to Euphame and Sir Walter Lesley,—and failing them, to his daughter Joanna.

But next year, 1371, Earl William complained to Robert II. that King David had given all his lands and tenements, and also the lands and tenements of his brother Hugh in Buchan, to Sir Walter Leslie without the Earl's consent—that he had been thwarted in his attempts to recover them—that King David had taken the lands into his own hands, but had restored them to the Earl on his making certain concessions to Sir Walter—that his daughter (Euphame) had not been married to Sir Walter with his consent—and that he had neither given Sir Walter any grant of land, nor made any agreement with him respecting the succession down to the day of King David's death.²

The reason for this contradiction is not known; it is of course connected with some family division, although the rival of Euphame and her husband is not named. We have here the ground of the insurrection which led to the battle of Bealach na Broige.

¹ Chart. Beaulieu Priory, p. 50.

² Or. Pr., vol. ii. p. 487.

In 1372 Earl William died, and Sir Walter Lesley became Earl of Ross in right of his wife, and died in 1382. Euphame, Countess of Ross, then married Alexander Stewart,¹ Earl of Buchan, who, in 1384–1387, appears on record as Lord of Ross. They soon separated, and in 1389 terms were made between them. Between 1394 and 1398 Euphame died, and in the latter year her son, Alexander Lesley, is Earl of Ross.²

Sir Robert Gordon, making the entry at the wrong date, states "ther wes ane insurrection maid against the Earle of Rosse by some of the people of that province, inhabiting the mountanes called Clan-juer [Clan-iver], Clantalvigh [Clan-t-aluigh, *i.e.*, Clan-Aulay], and Clan-leajwe [Clan-leaive, *i.e.*, Clan-Leay]. The Earle of Rosse maid such diligence, that he apprehended their captan, and imprisoned him at Dingwall; which so incensed the Highlanders, that they pursued with great furie the Earle of Rosse's second [only] sone at Balnagown, whom they took prisoner, and carried him along with them, thinking heirby to get ther captan released. The Monroes and the Dingwalls hearing of this vproar, convened their forces, and pursued the Highlanders, so overtaking them at a place called Bealligh-ne-Broig [*Bealach na Broige*,³ Pass of the Brogue] between Ferrin-Donald and Lochbroom, ther ensued a cruell feight, weill followed on either syd. The Clan-Iver, Clantalvich, and Clan-Laive, wer almost vtterlie extinguished and slain. The Monroes and Dingwalls had a sorrowfull victorie, with great loss of their men; and careid bak agane the Earle of Rosse's sone."⁴

The information here contained is supplemented by the following:—

¹ It was this nobleman who granted Melness to the Macleays.

² Or. Pr., vol. ii. pp. 487, 488.

³ Bealach na Broige is about two miles to the north-west of Garbat, at the watershed between the Strathannock and Garbat rivers (which run into the Blackwater), not far from Inisbeac, on the road from Dingwall to Lochbroom. There is a mythical account of "a great battle fought between the Mackenzies and the Dingwalls, when the Dingwalls were completely defeated by a very small number of the Mackenzies who were aided by a little old man who came that way and asked if they would accept of his help. He told them to put the left shoe on the right foot and the right shoe on the left foot, and so the Mackenzies gained the Battle of Bealach na Broige, with the assistance of the little old Bodach, and killed all the Dingwalls."—Mr W. Reid, Isle Ewe, from the information of Mr John Grant, Garbat, by Garve.

⁴ Sir R. Gordon's "Earls of Sutherland," p. 36.

"In 1374, some of the vassals of the Earl of Ross rose in arms against him, the chief of whom were the M'Ivers, M'Aulays, and M'Leas. They resolved to surprise the Earl, but their purpose getting abroad, his lordship seized upon their leader, Donald Garve M'Iver, and imprisoned him in the castle of Dingwall, which so irritated these Highlanders that they pursued the Earl's second son, Alexander, and, apprehending him at Balnagown, carried him captive in return.

The Earl, making the Laird of Lovat acquainted with these doings, he raised 200 men of his own tribe, and with a force, consisting of them, the Dingwalls, and Monroes, pursued the enemy and overtook them at a place called *Bealach-na-Broige*, betwixt the heights of Ferrindonald and Lochbroom, where they encamped. A bloody fight ensued, wherein the Clan Iver and Clan Leave were almost all cut off. William Dingwall of Kildun, chief of the Dingwalls, fell in the field with 140 of his name. Lovat [it is a *Fraser* who tells the story] retook the Earl of Ross's son, but the victory was dearly bought, especially to the Monroes, for, besides many of their leading men, the family of Foulis alone lost eleven who were to succeed each other, and the succession to that house opened to a child then in a cradle.¹

The family historians of the Clan Kenneth misrepresent this affair in their usual manner; with them it was a Mackenzie who was seized by the Earl of Ross. Lord Cromartie in his first account places this skirmish, without naming it, after the Battle of Harlaw, which took place in 1411, and merely states that "Murdo Nidroit" Mackenzie was made prisoner by M'Donald, Earl of Ross, at Dingwall, but was released by exchange

¹ Anderson's "Family of Fraser," pp. 53, 54. Since the above was written Mackenzie's "History of the Clan Mackenzie" has been published. It is stated on page 55 of that volume that "there has been a considerable difference of opinion as to the date of this encounter, but it is now finally set at rest by the discovery of a positive date in the Fowlis papers, where it is said 'George, the fourth laird, and his son, begotten on Balnagown's daughter, were killed at the conflict of Beallach na Brog, in the year 1452, and Dingwall of Kildun, with several of their friends and followers, in taking back the Earl of Ross's second son from Clan Iver, Clan Tarlich or MacIennans, and Clan Leod.'" It has not been thought necessary to cancel the text on such slender evidence.

for Balnagown, who had been captured for that purpose by some of M'Kenzie's faithful servants. His second account is a more extended narrative to the same purpose.

The Letterfearn MS., which was written between 1663 and 1670, has a barlic story concerning the Battle of the Brogues, which may be briefly epitomised thus: Euphame the "Heretrix" of Ross, who had little beauty, wished to have "Mackenzie" for her husband, but he refused, as he was aware that Robert, Duke of Albany, intended to marry her to his second son. She dissembled her grief, but when night came, and he was in his second sleep, she came and lay beside him. Her friends and servants then came in and cried out they were now witnesses that he was Earl of Ross. He resolutely declined the honour; so they put him in prison and tortured his servant, who told them Elandonan would never be rendered by Macaulay the Constable except to him who had the ring that Mackenzie wore. The ring was taken from Mackenzie, and it was presented to Macaulay, who was told that the bearers were to keep the fortress as a pledge that Mackenzie, who was about to marry the Countess of Ross, would not break his engagement. When Macaulay found he had been deceived, he took beggar's clothes and went to Dingwall Castle; he sought alms under the window of the place in which his master was confined. Mackenzie knew his voice and directed him, as a means of getting free, to seize the lady's uncle. This was done, and on the alarm being given the country followed, especially the Monroes and Dingwalls. Macaulay, finding he was likely to be overtaken, sent two men away with his prisoner, while he stood to defend a pass which has ever since been called *Bealach na Broige*, *i.e.*, the Pass of the Brogues, because the pursuers were forced to cover their breasts with their hide shoes to defend themselves from the arrows of the defenders. When the men who had been sent away in charge of the prisoner heard the noise of the fight, they thought it to be beneath their manhood to stay away, so they bound him to a tree and joined in the fight. But when Macaulay had spent all his arrows, and the country was gathering more and more against him, he was forced to quit the pass. When he found himself clear of his enemies he inquired

after his prisoner, and found him bound in the wood. Macaulay retreated towards Kintail, and met a party of Rosses, who were carrying provisions to Elandonan. These he slew, and taking up their burdens, proceeded on to Elandonan with concealed arms. On arriving at the gate they cried out to those inside to be quick as they were wearied by their burdens, but as soon as they got in they took possession of the castle. Macaulay prepared for a long siege, and then sent word to Dingwall that he would hang his prisoner, the Laird of Balnagown, unless his master was set at liberty, which was done.

From this time we hear no more of the Clan Macaulay in Ross-shire, but they appear to have amalgamated directly or indirectly with the Clan Kenneth.¹

An excellent account of the Clan Iver was written by Peter Colin Campbell, D.D., Principal of Aberdeen University, in which he endeavours to prove, with doubtful success, the advent of the Macivers in Ross-shire from Argyll in 1296.

The Macleays, who appear to have practised the double art of giving and curing wounds, appear on record till 1511, when their estates passed to the Mackays.²

TRADITIONS OF THE LEWIS MACAULAYS.

We now turn to the Lewis Clan Macaulay, whose name, as a consequence of the genius of one of its members, is known throughout the civilised world. Their traditions begin with John Roy the son of Dugald, the grandfather of Donald Cam, and the latter appears on record 24th July 1610. Angus, who was killed at Aultdearn, 4th May 1645, was the son of Donald Cam, and the grandfather of Mr Aulay Macaulay, minister of

¹ "The natives of the parish [of Kintail] are all MacRaes except two or three families."—O. S. A., vol. vi. p. 243. "When the MacRaes first entered Kintail, there were several clans inhabiting it, particularly the MacAulays, of whom no vestige now remains."—*Ibid.*, note. "One of the Gairloch Macanlays took a wife from Achindrain, Loch Broom, who was said to be of the old stock of the Macaulays."—Mr W. Reid, Isle Ewe.

² Or. Pr., vol. ii. p. 705.

Harris; and Mr Aulay was the great grandfather of Lord Macaulay, the poet, historian, and statesman.

These traditions have been drawn from various sources, as is seen in the notes, but the foundation of nearly all of them is the work of Mr Donald Morrison, cooper, Stornoway. He evidently proposed to himself a sort of History of the Isles, under the somewhat ambitious title of "The Conflicts of the Western Highlanders, or the various and repeated Struggles of the most illustrious Heroes in the Isles, comprehending the Isles of Lewis, Harris, South Uist, and Barra, likewise the Mainland and Isle of Skye, Isle of Eigg and Mull, also the various plunders committed by those clans upon the others, and every act thus bravely resented, also repulsed, and ultimately fully retaliated, during a period of 263 years."

The result is a work in nine small MS. volumes, of which unfortunately two, the second and fifth, have been lost. The first volume is nearly filled with the traditions of the Macaulays, but towards the end those of the Morrisons and Macleods are commenced. The second volume is lost, but about one-third of it was a copy of the Letterfearn MS., which is a history of the Mackenzies. Half of the third volume contains the remainder of the history of the Mackenzies; the other half, together with the rest of the volumes, are filled with genuine traditions of the Long Island, Skye, and Mull; but there are a few copies from the "Gaelic Messenger," Brown's "Sketches," &c. The two last volumes are still further interesting, as they also contain translations of genuine Ossianic poetry, which are of course very different from that manufactured by Macpherson.

Although Mr Morrison indulges in constant repetition and needless explanations—which are almost necessary in a bard—his matter is good, and he leads to a climax in his narratives with intuitive genius. The good work he has done can be best estimated by comparing it with the mangled remains which can now be collected, and which most usually only exhibit tradition in decay.

Donald Morrison, although of Lewis descent, was a Harris man by
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birth, for he was born in May 1787, at Dirishgil (*i.e.*, Deers-gil), on the south side of Loch Resort, in the wildest part of a wild country. The place is full of high mountains and deep glens, and when Torran Mor is angry the winds roar and howl and hiss, and the sea is white with whirling foam, and the surface of the river-like loch is like a battlefield for mist and tumult. But the boy was soon removed to Errista, Uig, and was afterwards a schoolmaster for five years at Valtos.¹ He then went to Stornoway, and was a shopman with Mr Murdo Macleod, cooper and shipowner. He afterwards commenced business on his own account, failed, and then followed the trade of a cooper. About this time he began, on his own suggestion, to write his "Traditions," in which he was encouraged by the late Rev. W. Macrae, Barvas, and the Rev. J. Cameron, Stornoway.

Although a Morrison by name he was brought up in the country of the Macaulays, which accounts for the greater fulness and reality of his traditions concerning them. Most of this lore he obtained from his stepfather, who was well-versed in the legends of that place.

Donald Morrison married in 1810, had twelve children, and died in August 1824. He was three years writing his books, writing and taking notes from people, with no other desk than a board across his knees.

One of the missing books was lent to Dr Macaulay who died at Liverpool; and the other was taken away by H. R. Macleay, collector of customs, to Sunderland. If, to use the form of advertisement in like cases, either or both of these volumes are forwarded to the S. A. Scot, a reward will be given and no questions asked.

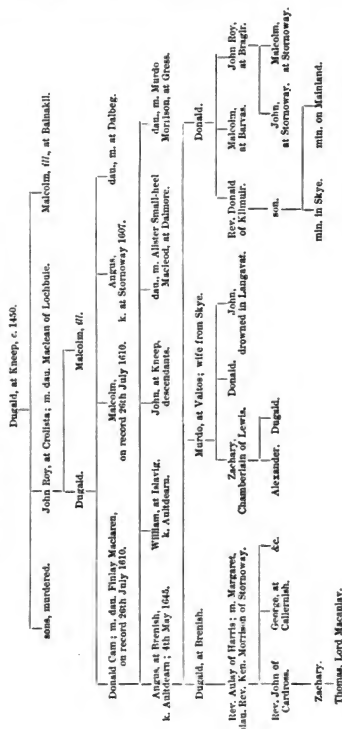
To enable the reader to follow the narrative with greater ease, a genealogical table of the Lewis Macaulays is herewith appended:—

¹ "In Uig he is known by the name of Domhnall Bàn Sgoilear, *i.e.*, Donald Bain, scholar."

GENEALOGY OF THE MACAULAYS OF LEWIS.

Olaf = Amhlæbb = Olave—11th or 12th century (?).

Isabel Macaulay, m. Duncan Macaulay of Lochbroon, c. 1300.



John Roy Macaulay.—About August 1460¹ the brother of the Chief of Lewis was Old Norman Macleod, who lived at the island of Pabbay, which lies one mile to the northward of Kneep and Valtos; Norman Oig, his eldest son, had the farm of Balnakil, three miles distant on the shore of the bay of Uig. Macleod, the Chief of Lewis, allowed the whole rental of the parish of Uig for the support of his brother Norman and his family.

It was at this time that the sons of Dugald Macaulay held the farm of Berry or Reef, and the two adjacent farms of Valtos and Kneep. Now it was upon one or other of these farms that Old Norman had to land or embark his cattle and sheep as they passed to or from the island of Pabbay. On one occasion, as Old Norman's cattle were being ferried from Kneep, a cow belonging to the Macaulays happened to be among them. The herdsman of the Macaulays claimed the cow, but the Macleods refused to give it up, saying it was one of their own.

When this altercation was reported to the sons of Dugald Macaulay, they repaired in a hurry to the shore at Kneep, and arrived there just as Old Norman, who was in the boat, had hold of the cow's tether with both his hands. The Macaulays demanded the cow, which Old Norman

¹ This date can only be a tolerable guess on the part of Mr Morrison. Say John Roy was ten years old at the time of the murders, he would have been born in 1450. There were eight generations between John Roy and Lord Macaulay, and, on the theory of thirty years to a generation, Lord Macaulay would have been born in 1690, whereas it was in 1800, a difference of 110 years. Again, if the date 1450 is correct, there is the long interval of 43½ years to a generation. O'Donovan remarks "from all authentic pedigrees, that more than thirty years, the average standard laid down by Newton, must be allowed for each generation" (p. 101, "Hy. Fiachrach"); and it can be proved to be inapplicable to this family. Starting from 1800, Angus of Brenish should have been born in 1650, but he was killed at Aultdearn in 1645, that is, according to theory, five years before he was born. And the birth of Donald Cam should have been in 1620, but himself and his brother Malcolm are on record 4th July 1610. Assuming Angus of Brenish to have been born in 1600, and forty years to a generation, John Roy would have been born in 1450, and this is probably near the truth. The length of the generations can be accounted for by the great waste of life by war, famine, and disease. For disease compare the vital statistics in chap. x., Seton's "St Kilda."

Roderick Oig, Chief of Lewis, is on record in 1478 and 1494, and was succeeded by his second son, Torquil (who married Lady Catherine Campbell), c. 1495.

still refused to yield; they then seized the tether and dragged it with violence from Old Norman, by which he was thrown forward in the boat and two of his teeth were knocked out by striking against a timber.

The old man suffered much pain and loss of blood, and took to his bed when he got back to Pabbay,¹ but, knowing the vindictive temper of his wife and sons, he concealed the cause of his accident, and cautioned his servants to do the same; they, however, disobeyed him.

When the sons returned from the Flannan Isles, the wife, wishing to add fuel to flame, placed on the table before them the two teeth which Old Norman had lost in the struggle. In great exasperation the Macleods landed that night at Reef when the people were to bed, and murdered all the Macaulays they could find. The Macleods sought fiercely for any male of the Macaulay clan, and finding Malcolm,² who had at first been hidden by his nurse, they hesitated as to whether they should kill him or not, till one of the murderers flung him over a park wall, by which the child's leg was broken. The murderers jestingly remarked that if reprisals were not made till they were made by that boy they need never be on the outlook.

The screams and shouts occasioned by these savage murders were heard over the surrounding farms, and across the sea to Pabbay; and Old Norman said, "What doleful cry is that ashore at Kneep?" His wicked wife replied that her whelps had now plenty of blood about their teeth, alluding at once to the disaster which had befallen Old Norman, and to the murderous deeds of her sons. When the old man understood what had been done at her instigation, he exclaimed, in great sorrow, "Oh! wicked woman; for the vile murders which you have advised your sons

¹ Pabbay is one of the numerous islands lying in Loch Roag, on the west side of Lewis. Dean Munro, in 1549, writes—"Pabay ane Ile mair nor ane mile lang, ane frutfull fertile mane Ile full of corn and scheip, quhairin thair wes ane kirk [dedicated to St Peter], quhairin also M'Cloyd of Leoyus uses to dwell, quhan he wald be quiet or feirit. This Ile is gude for fishing also, pertaining to M'Cloyd of Leoyus." Sir R. Sibbald's account is an abridgment of the above. For the etymology of Pabbay, and other place-names in Lewis, see *Proc. Soc. Ant. Scot.*, vol. xi. pp. 472-507.

² An illegitimate child.

to do this night a time shall come when they too shall be killed, and none shall escape."¹

As soon as the news of this outrage reached the ears of the Chief of the Macleods at Stornoway he was struck with horror, and forbade either his brother or his nephews ever again to see his face.

But one of the sons of Dugald Macaulay escaped the slaughter; this was John Roy,² who was being fostered by Finlay Ciar Macritchie,³ at Mealista, at the farther end of Uig. John Roy was now without family or friends, and destitute of all means of defending himself from the rapacious Macleods. But while the desperate condition of John Roy was being considered by his foster-father, a messenger came, with the authority and approbation of the Chief at Stornoway, and delivered himself to this effect. The rash murders which had been committed on John Roy's friends and brothers by Old Norman's sons had incurred his highest displeasure; but, to make some amends, it was the wish of the Chief that his brother Norman should take John Roy into his family and show him every mark of kindness,—the Macleods solemnly binding themselves to protect him from every injury by their arms and persons.⁴

Under these binding and secure obligations John Roy Macaulay came into the family of Norman Macleod at Pabbay. But notwithstanding these plausible engagements of the Macleods, John Roy's foster-father,

¹ "The Gaelic expression, which I remember to have heard a hundred times over, for the writer has very faithfully copied the oral tradition, which from its being often recited has attained a curious fixity of phrase, is *mar a thubhairt b'fhiar*, that is, it came to pass exactly as he predicted."—Rev. M. Watt. Another version has: "You devil of a woman, you have kindled a fire you shall never see quenched."—Rev. J. Strachan, Barvas.

² His mother is said to have been a Maclean.

³ There is a tradition that the Macritchie's, in Gaelic *Mac Rianaidh*, are the descendants of a sailor boy who came to, or was wrecked on, Lewis.

⁴ To place him who has received a deadly injury in the family of those who did that injury would seem to be a most impolitic proceeding; but fosterage was thought to give much stronger ties than even blood-relationship, for the Gaelic proverb says—"*Coaltas gu coit' s' crìoleas gu fichead*," the meaning of which is, that if relationship counts for twenty, co-altship or fosterage counts for a hundred. In the few instances that I am acquainted with, the result of this compromise was unfortunate.

Finlay Ciar¹ Macritchie, was always restless on his account,—doubting the sincerity and the veracity of the Macleods.

When John Roy was thirteen years of age, the Macleods, ever replete with malice, proposed a hunting party to the wild forest that borders upon Harris. It was the month of November, and much snow had fallen upon the hills; towards evening these young men repaired to a hut or shieling, called Tota Kenneth,² a Lewis mile to the southward of Ken Resort, a place well known to the author of this narrative. Here they were to pass the night; but, without pity or remorse, the Macleods seized John Roy and bound him hand and foot, then stripping him to his shirt they tied him to a large stone, and left him upon the bare snow, exposed to all the horrors of a dark and bitter night. In vain he entreated these merciless men to spare his life and he would engage to forget and forgive all that had passed before, but they left him there to perish, and turned a deaf ear to his cries and entreaties.

But while this black tragedy was being perpetrated, Finlay Ciar, at Mealista, which is seven Lewis miles from where his beloved and adopted son, John Roy, was lying bound and exposed to the inclemency of the snowy night,—this Finlay Ciar was suddenly warned in his sleep of the hapless situation of his foster son at Tota Kenneth. In great alarm poor Finlay Ciar waked up and told his wife what he had dreamed, but she said that restlessness and anxiety had wrought upon his imagination. He turned himself to sleep, and again a spirit³ came before him and repeated with greater earnestness the former warning. His wife tried to persuade him that what he dreamed was the effect of his disturbed and anxious mind, and bade him try to sleep. But he had hardly closed his eyes when

¹ *Ciar*, Gaelic, *i.e.*, dusky, dun.

² Tota Choinnich, *i.e.*, Kenneth's (deserted) Hut, is on *Clar Mòr*, *i.e.*, the Big Flat, and is marked on the Ordnance Map. A man is still living whose father is said to have been born in it. It was in this district that the beehive houses, which are supposed to be the most primitive form of human dwelling, were discovered, in 1857, to be inhabited at the present time.—*Proc. Soc. Ant. Scot.*, vol. iii. p. 127.

³ This was the *Hamingja*, *Ice*, or Guardian Spirit of John Roy.—*Vig.*, "Ice. Dic." *sub voce*.

the spirit appeared, and with the utmost vehemence directed him to rise and save his foster son ere it was too late.¹ Finlay Ciar now got up, and made his wife milk the cows, which were in the house, into a craggan, and boil it on the fire; when it was boiling hot he wrapped the craggan in a skin, and on a frosty moonlight night set off for Tota Kenneth. There he found John Roy bound hand and foot, and almost dead from cold and hunger; but he soon revived the boy by a great draught of the warm milk, and, wrapping him in his big coat, he took him on his back and returned to Mealista before daylight.

The sons of Old Norman, although at this time frustrated in their design of extirpating the worthy family of the Macaulays, were still determined to deprive John Roy of life, but his watchful protector, Finlay Ciar, dreading their renewed attempts, sent him away, well armed and clothed, with a faithful attendant to a secluded retreat among the hills, where there was a cave, called Uamh (pron. Oo-ah) Tayval.² This cave, besides having

¹ To those who object to the supernatural in this narrative it may be submitted that Finlay Ciar had heard of this hunting expedition, which was often an excuse for something very different, and that he suspected mischief.

The domestic arrangements in this secluded region are shown in "Primitive Dwellings."—Proc. Soc. Ant. Scot., vol. vii. pp. 153-195.

The craggan (*krukka*, Ice.) is the most primitive form of native pottery at present in use in the British Isles. Although in general use in the last generation in Skye (Dr Millar) as well as in the Long Island, it is now only made in the west of Lewis. It is in no way different in manufacture from the sepulchral so-called urns of the Stone Age (see Dr Mitchell's "Lectures"); and there are figures of them in "Muir's "Chars. of Old Church Arch." and "Arch. Scot." vol. v., p. 139. They are exactly of the same form as those in use by the Zulus now.

² Written in Gaelic, *Taithabhal*; probably *Ta-fjall*, Ice. = the Hill of Grassy-ledges; from *Tó* = a grassy ledge; and *Fjall* = hill. Tayval, which is 1500 feet high, is 3 miles N.E. of Mealista. The next hill, west of Tayval, is Mealasval (*Mealasbhal*, Gaelic; *Mel-stad-fjall*, Ice.), 1750 feet high; between them lies one of the most romantic places in Lewis, a corrie or gill, called Raonsgail, i.e., *Riins-gil*, Ice. = Robber's Corrie, about 1000 feet deep. The sides are cliffy and broken, and I should expect many holes and caves, such as there are at Hellsvagr (*Tealashbhadh*, in Gaelic spelling), among its ice-shattered cliffs. I viewed the corrie (*gill*) from the top of the pass, but at that time was not aware of any peculiar interest being connected with it. But there is a cave, Uamha Mhiogiseal, on the east side of Tayval, marked on the Ordnance Map, and this may have been the place of retreat.

The Pietish towers, or dúnns, are built by choice on a small rock or islet in a fresh

two entrances by which a ready escape could be made, had a peculiar advantage, for no person could approach it without warning being given by a nicely balanced stone which made a grating noise when it was trod upon; it was called the warning-stone. In this cave the anxious Finlay placed his dear John Roy until a favourable time should arrive for sending him away.

While they were in the cave John Roy and his attendant took it in turns to watch, and they had not been there many nights before the warning-stone gave warning of the approach of an enemy in sufficient time to allow John Roy to escape by the opposite outlet, but his attendant was captured and secured by Old Norman's sons. John Roy fled across the river, but when daylight came John Roy drew near to the Macleods and said: "Allow my servant to return at once, or every arrow that I shoot shall have one of you upon its point so long as any one of you is left alive." The Macleods, knowing well the skill and courage of the young Macaulay, were discouraged; they permitted his servant to rejoin him and gave up the pursuit.

John Roy now got ready to depart from the good and faithful Finlay Ciarr. John Roy first went to Harris, thence crossed to Mull, and arrived at the house of Maclean of Lochbuie; here, relating his murderous adventures, he was kindly received, and remained for seven years, greatly loved and esteemed.

In the meantime the chief¹ of Lewis had found out all the mischief his brother's sons had devised and executed; he execrated them for the violation of the solemn promise made through him and other worshipful men; he secretly dreaded their malice as persons in whom no trust could be reposed, and forbade that any of them should come into his presence.

water loch. The approach is by stepping stones, which I have never seen placed in a straight line, but always in a curve, an obvious advantage in defence. It is a general belief that one of the stones, *Clach Ghlaiginn*, Gaelic = warning-stone, was balanced, so that it made a noise when trodden upon, and hence gave warning at night, when any one was coming over the stepping-stones.

¹ Chief is not here a translation of *Tighearn*, but of *Uuchdaran* = head-man, governor, or captain.

John Roy having now arrived at manhood, Maclean of Lochbuie wrote to the chief of Lewis desiring him to compel his nephews to make restitution of the property belonging to the deceased Macaulays, or that he would send that now accomplished soldier, John Roy Macaulay, to Lewis, to demand his rights by force of arms. The chief of Lewis replied that he was highly incensed at the treacherous conduct of his nephews, whom he believed to be ruthless and incorrigible, and that if John Roy revenged their misdeeds upon the guilty parties he would give him the best farm in Uig free for life.

When Lochbuie received this encouraging letter he called John Roy before him; he tried him in the use of the broadsword and other martial accomplishments, and finding him in every respect a worthy gentleman and soldier, he showed him the letter from the chief of Lewis.

John Roy was ready, even single handed, to return to Lewis and seek revenge upon the murderers of his father's family: Maclean offered men and arms to assist him in his adventure, but John Roy would only accept the services of one attendant, and was landed from Maclean's galley in Harris, from whence he went to Mealista, where he was received with much joy by his foster father, Finlay Ciar; and the same evening he travelled on to Pennydonald,¹ within a mile of Balnakil, the farm of Norman Oig Macleod.

Now it is told by those who narrate this story that, during the seven years that John Roy had been away from Lewis, Norman Oig, betraying his guilty conscience and always dreading revenge, watched for several hours every day at a ravine which is behind the Manse of Uig, called Skor a Choimper.²

It was on a Saturday evening that John Roy came to Pennydonald, on the southern shore of the sands of Uig, and it happened that two of Norman Oig's co-alts,³ i.e., personal attendants, came across the sands the

¹ Pennydonald, i.e., Donald's Penny-land; a penny being the tax due from it on the ancient valuation roll.—Skene's "Ffordun," vol. ii. p. 450.

² Skor a Choimper, for *Skorav-Kambr* = cleft (in the) ridge; from *Skor*, Ice, a cleft, senar; and *Kambr*, Ice, a crest, ridge.

³ *Co-dhalta*, Gaelic, a foster-brother. The fosterage was always in a family of inferior

same evening; both were seized, and in order to save their lives they were made to take an oath of secrecy and to promise that if it should be discovered that John Roy was approaching Uig on the morrow, they would endeavour to hinder Norman Oig from reaching the sanctuary.

About the noon of Sunday the people began to gather for going to the church, and Norman Oig, with his two co-alts, had as usual gone to look out from the Skor, when suddenly he exclaimed, "What tall man can this be who is coming over the sands?" his fellows said it was one of the parish people on his way to church. But Norman Oig continued to gaze with great anxiety, and said, "If John Roy Macaulay is alive it is he!" His co-alts dissuaded him from the idea, but Norman looked ruefully towards the crowd and said, "I shall soon know, for John Roy, whenever he came to a river, always drew his bonnet firmly on his head before he wetted his feet."¹ By this time John Roy was about to cross the river, and, as usual, put his hand to his bonnet. "It is he," exclaimed Norman Oig, and began running to get within the walls of the sanctuary. His attendants tried to hinder him, still he was driving them before him. John Roy observed the struggle and rushed forward. By this time Norman had got clear of his two men and was running for the sanctuary. John Roy, wanting no stimulus, ran fast, and before Norman could leap the wall of the sanctuary John Roy had overtaken him and thrust him through the body with his sword.²

John Roy then went on, intending to reach Pabbay that same night, but when he came to Valtos he found that two of Old Norman's sons were on shore there, and both being taken by surprise, one was killed at *Leòb³ Uilleaim*, i.e., William's Rig, and the other at *Tràigh Aileain*, i.e., Allan's Strand. The only son of Old Norman now remaining was one who was

rank. See the trick practised on King Athelstan.—Laing's "Heimskringla," vol. i. p. 310.

¹ So that his hands might be at liberty after he had entered the water.

² "*Ag cur a chlàidheamh ri a shroin thubhairt e gu'n deanadh sud a' chùis do Thormad Og.*" A very Zulu-like idea.

³ *Leòb*, in Lewis, a broad rig.—Rev. M. Macphail.

fostered at Lochs, and who had not been concerned in the slaughter of the Macaulays.¹

John Roy got a boat and went across to Pabbay, and there in scorn and contempt of the wicked woman who had been the cause of all these misfortunes, he ordered her clothes to be cut off from below her waist, and made her fly from the country to her native home in Skye. John Roy then directed that one-third of the cattle and goods should be set aside for Old Norman, and kept the rest for himself. He then went on towards Stornoway to see the chief of Lewis, and on the way was joined by his natural brother, Malcolm, the one who was thrown over the wall on the night of the murders. As they were drawing near Stornoway, at *Chae na Croiche*, i.e., Gallows Hill, who should come right upon them but the only son of Old Norman Macleod, who, as he was not present at the murders in Uig, was permitted to visit his uncle at the castle. The lad knew John Roy at once, and said, "Mercy, mercy, Macaulay." John Roy replied, "I will grant you mercy if the young man behind me will do so." On hearing this the young Macleod ran down the hill to swim to the castle, but before he could cross an arrow was discharged which wounded him in the back of the head. Macleod, the chief, seeing all this from his castle, said, "Let John Roy have the benefit of his shot," and would not suffer his nephew to land: the poor lad turned back to Aird Chlerich and was there killed; thus did Macaulay repay their wicked deeds to the Uig Macleods.

John Roy then entered the castle, when the chief extolled his prowess, and thanked him for ridding the parish of Uig of that murderous family; and he gave him, free of rent, a lease for life of the farms of Crolista and Balnakil. John Roy put his brother Malcolm in Balnakil, and settled himself at Crolista; soon after he married

¹ "There is some confusion here as to the number and the names. I remember just now of only four whose names are associated with particular localities, all of which I know well. There is *Tràigh Ailrain*, or Allan's Strand; *Leob Uilleain*, or William's Rig; *Gleann Eanauill*, or Ranald's Hollow; and *Chae Thorcuill*, or Torquil's Hillock." — Rev. Michael Watt, now in New Zealand.

the daughter of Maclean of Lochbuie, who bore to him an only son, Dugald.¹

These events must have occurred towards the end of the 14th or near the beginning of the 15th century. In 1478 Roderick Oig Macleod is on record; in 1494 he made submission to James IV., and was dead before 1498. Roderick's eldest son, Roderick, was killed at Mull, in the battle of the Bloody Bay, in 1480. The second son, Torquil, was chief of Lewis in 1498, and married Lady Katherine Campbell, daughter of Colin, first Earl of Argyll; and secondly Agnes, daughter of _____, who was the mother of John. In 1501 Donald Dubh, who claimed to be Lord of the Isles, escaped from the castle of Incheannel and came to Lewis, where he received the protection of Torquil Macleod. Torquil, in 1502, was charged under the penalty of treason to deliver up the person of Donald Dubh to the Government, and on failing to obey he was denounced a rebel and his lands forfeited. The islanders continuing in rebellion, Torquil Macleod was summoned to stand his trial for high treason, and not appearing, he was solemnly forfeited by Parliament in 1506; the castle of Stornoway was besieged and taken, and the whole island reduced to obedience; but the fate of its lord is uncertain. In 1511 Lewis was restored to Malcolm, the brother of Torquil—he married Christina Urquhart, and died c. 1515. At this time John, the son of Torquil, the real but not the legal heir, seized the possession of Lewis. In 1518 the Lewis Macleods took part in the battle of Craiganairgid, in which Macian of Ardnamurchan was defeated and slain. In 1528 John mac Torquil assisted Donald Gruamach—his uterine brother—to expel the Harris Macleods from Trouterness; in 1530 John was one of the “tenants” of the isles, and he died in 1538. In that year Roderic, commonly known as Old Rorie, who was the son of Malcolm, and the cousin of John,

¹ “I need not say that this story, though one of the oldest, is one of the best authenticated which has come down to us from those times. Its romantic and eventful character has made at all times a deep impression on the Uig people, and though ecclesiastical influences have succeeded (and perhaps beneficially) [!] in separating the present from the past, they still point with pride to the descendants of the same John Roy, of the 11th or 12th remove, living among them.”—Rev. Mich. Watt.

became chief, and the always troublous times of Lewis became still more troublesome, till they ended by the extinction of the Siol Torquil in the person of Torquil Dubh, the son of Old Rorie, who was decapitated at Ullapool in July 1597, by the order of Mackenzie, and under the direction of his pseudo-brother Torquil Cononach.¹

A sketch of the history of Lewis at this period has been given in a former paper,² and we again turn to the traditions of the Macaulays, which, however, contain no notice of events in Lewis until the time of the capture and betrayal of Torquil Dubh by the Brieve of Lewis.

As stated above, the only son of John Roy Macaulay was Dugald, of whom it may be predicated that he had a fortunate life, for nothing is told about him except that he was the father of the famous Lewis champion, Donald Cam Macaulay, and of two other sons who were hardly less remarkable for their courage.

The Macaulays, after the settlement of John Roy in Uig, became fast friends of the Macleods, and stood by them in their troubles; while the Morrisons—for reasons stated elsewhere—took the side of the Mackenzies. It is strongly to be suspected that "Donald Dow-Mack-Rory³ (a gentleman of the island)," who assisted the Macleods against the Fife adventurers, was really Donald Cam mac Dugald Macaulay; it is certain that the fame of the latter has sped over all the country, while the name of the former is unknown.

In the fragment of Sir R. Gordon's history of the Earldom of Sutherland, printed in the "Miscellanea Scottica" under the title of the "Conflict of the Clans," it is stated that Torquil Dubh was "accompanied only with seven gentlemen" when he was captured by the Brieve of Lewis and carried across the Minch to Ullapool, where he was beheaded. The following is

¹ Cf. Gregory's "Hist. Isles," *passim*; "Or. Pr." vol. ii. p. 382, and Burke's "Landed Gentry," vol. iv. p. 584. Sir R. Gordon mentions the earthquake which happened on the occasion of this shameful crime; but it is also told in Lewis that, when the murder was committed, the hands of every milkmaid in the Isles became bloody.—Rev. J. Strachan.

² Trans. Morrisons (Proc. Soc. Ant. Scot., vol. xii. p. 511).

³ Sir R. Gordon, "Earls of Sutherland," p. 271.

the tradition, which, although confused, narrates circumstances of some interest.

*Donald Cam Macaulay and Alister Small-heel Macleod.*¹—In 1597 some degree of peace was enjoyed in Lewis under the government of Torquil Dubh Macleod, son of Old Rorie. Torquil Dubh had been fostered in Uig under the guard of Donald Cam and twenty-eight stout Macaulays.² Torquil Dubh was hunting for rabbits in his nightshirt, on the sandy holm of Siar-em, a little island opposite Valtos, when a message came from John Morrison, Brieve of Lewis, inviting Torquil Dubh, Donald Cam,³ and their friends to a feast at Ness, on board a foreign vessel which he had captured. But the Brieve treacherously concealed a party of the best warriors of his clan in the ship, of whom the doughtiest was John Roy Mackay, who lived at North Bragir, in Barvas.

The guests were seated round the table and enjoyed themselves for some hours, their arms having been deposited elsewhere. It was getting dark, and everything being ready, the ship's cable was silently cut and she drifted into the open sea. Presently the ship began to roll; Donald Cam jumped on deck, and, seeing the state of matters, cried out to Torquil Dubh that they were betrayed. He rushed to where his arms had been laid, but they had been removed, and then the Brieve's party, who had been concealed, stood forth with swords and daggers. The gigantic Mackay seized Donald Cam, and, while others stood by with their swords to his breast, lashed him to the mast. Torquil Dubh was bound by another party of ruffians, and the ship was steered for Ullapool, the residence of the pseudo-brother of Torquil Dubh. The prisoners were

¹ The foundation of this legend is in Morrison's "Traditions of Lewis," but it is corrected and enlarged from information supplied by the Rev. Mich. Watt, and the Rev. J. Strachan, Barvas.

² At the present time it is not uncommon to find two sons of the same Christian name in the same family, but Old Rorie had four sons named Torquil, and I suspect that, in the legend, Torquil *Dubh* has been confounded with Torquil *Uigeach*, i.e., Torquil of Uig.

³ *Càm*, Gaelic, (pron. *karhm*) means blind of an eye. A Gaelic proverb is "*Cha robh cam, nach robh croada*," i.e., "Whoever is blind of an eye is pugnacious, or ill-natured."

landed; Donald Cam and his son-in-law, Alister Small-heel Macleod,¹ were fettered by a heavy chain to a large block like an anvil, which weighed eleven Dutch stones. It is told that the prisoners were chained in pairs sitting with their backs to the wall, Torquil and another being at the top, and Donald Cam with Alister Macleod were the last. While sitting in this disconsolate manner a man suddenly entered, having in his hand a bunch of twigs of sycamore, in Gaelic called *fior-chrann* (pron. fur-ann). He walked along the row, beginning at the top, presenting the bunch in passing as if he meant that each should help himself from it. Being absorbed in anxiety and despair, they took little notice of the man, and perhaps thought he had come to mock their misery. But when the bunch was proffered to Donald Cam, although he was in as forlorn a condition as any of the rest, he was so irascible by disposition, that he clutched at and snatched away some of the twigs, and Alister followed his example, and they noted afterwards that they were the only two who escaped with life.

While Donald Cam and his companion were brooding over their misfortunes, Alister suddenly remembered that one of his feet was smaller than the other, and that it was the small one that was in the fetter. With little difficulty he extricated himself, helped to place the block and chain on the back of Donald Cam, and both got away.

They lurked in the woods all next day, but the boats were everywhere turned upside down, and not an oar was left outside a house. But the fugitives succeeded in reaching Applecross, and there found an old boat, but so leaky that they had to stop the seams with clay, and their only oars were the bars from the gate of a cattle-pen. They started in the direction of Skye; but by this time Donald Cam was so far spent by misery and the intolerable weight of his chain, that, rendered desperate by his misfortunes, he gave up rowing and baling when but half way across, and sat gloomily down in the stern of the boat.

At this failure on the part of Donald Cam, Alister did not say one word, but awhile he rowed and awhile he baled, till at last they reached Skye.

¹ *Alasdair na saile bige*, Gaelic.

When they got to land Alister asked Donald Cam why he had given up rowing when they were but half way across. Donald said he was so galled by his chains and irritated by his misfortunes that he thought by sitting idle in the leaky boat he would provoke Alister to quarrel, that then they would fight and both would perish together. Alister suspected such was his intention, and, knowing the danger, avoided offending him, and rowed and baled as best he could. They were kindly received at Dunvegan, and a smith took off the chain which was linked round Donald Cam's neck and leg.

The iron chain was kept for many years at Dunvegan as a convincing proof of the strength and endurance of Donald Cam; but once, when Macleod was from home, a blacksmith converted it to some domestic use. The late Rev. Hugh Munro, of Uig, saw the chain at Dunvegan when it weighed eleven (Dutch) stones.

After the adventurers had recruited their strength and procured new arms, they crossed the sea to Harris and came on to Uig, their native place. There was much joy on their safe arrival among their friends and relations, who had had no hope of ever seeing them again.

When the Brieve of Lewis found that Donald Cam and Alister Small-beel had escaped, he hastened home in much alarm, dreading invasion from the Macaulays, and prepared for defence by endeavouring to procure the attachment and assistance of the ablest of the Ness warriors.

*John Mor Mackay of Bragir.*¹—When John Mor Mackay came back from Ullapool with John Morrison, Brieve of Lewis, he began at once, from fear of attack by Donald Cam Macaulay, to fortify himself in Dun Bragir,² in which he built a hut for himself and his wife. But she was a niece of Donald Cam, and deeply resented the treachery acted towards him by her husband. John Mor Mackay was of such uncommon size and strength as to be reckoned one of

¹ This legend is also corrected from information supplied by the Rev. J. Strachan, Barvas.

² It is a ruinous Pictish tower on what was once a small island, beside the main road, in Loch Bragir, in the township of that name. The remains of the Pict's castles in Lewis have been utilised for defence till quite modern times.

the giants of the country, yet he dreaded danger when he heard that Donald Cam had got to Uig, and well he might.

After Donald Cam had returned he mustered all the Uig warriors; he picked out twelve of the strongest, and who were also the best swordsmen, and sent them away to take John Mackay, dead or alive. These twelve, fully equipped, set out for Bragir, and arrived at the shore of the loch by night. They got a boat and rowed to the dun, and without delay entered the hut in which Mackay was in bed. They attacked him furiously, yet he defended himself with advantage against the twelve. They then closed and grappled with him, but their combined strength could not bring him to the ground. His wife then cried out: "What poor fellows! did you never see a boar libbed?" Acting on this treacherous hint they brought him down, and bound him hand and foot. In the morning the Macaulays set off with their prisoner, with his hands tied behind him, and secured (in a cruel manner) by a rope, of which six of the Macaulays had hold in front, and six behind. Nevertheless, when the party was forling the Grimersta river at Linshader, Mackay made a lounge in one direction, by which he overthrew the six Macaulays who were in front, and then by a lounge in the opposite direction he brought down those who were behind; he was unable, however, to make his escape. Soon after they arrived at Kirkibost,¹ in Bernera, and there rested with their prisoner, while information was sent to Donald Cam of the success of their adventure.

The next day all the people of Uig repaired to Kirkibost, and last of all came Donald Cam. Mackay had sent a man to watch the approach of Donald Cam from Ballygloni, and particularly to notice whether he was looking up or looking down. The man returned and said that Donald Cam had his head so bent as if he were seeking for small pins on the ground. When Mackay heard this he said—"The Lord pity my case this day, for by this I know that he has determined on full revenge." When Donald Cam came up Mackay cried out—"Mercy, mercy, oh, son of Dugald!"² but he was coldly reminded that he had received no mercy, but had even been treated with unnecessary indignity, when a prisoner on board the ship.

With little ceremony it was decreed that John Mor Mackay should die on that very day, and that every man should give him a cut with a sword. Mackay

¹ In Great Bernera; written *Circabost* on Ord. Six Inch Map; for *Kirkju-bolstaðr*, see. = Church-Farmstead.

² *Páir / páir / Mhic Dhughaill*.

was brought forth and placed upon a hillock, which was named—from a circumstance which will be noticed further on—the Hill of Evil Counsel.

And now occurred the following strange adventure. Every man began to hew and thrust with the sword at John Mor Mackay, but although they struck him with all their might they could make no impression on his body; he was invulnerable, and only a little smoke ascended as a consequence of each stroke. All were amazed; but among the crowd there was a pedler, who cried—"Let the grun (or ground) be cut beneath his feet, and the charm which now renders him proof against every weapon will desert him." When this was done he was instantly killed, and his body was minced by the swords of those who were present.¹

The Red Weaver.—The grant which John Roy Macaulay obtained from the Chief of Lewis of the farm of Crolista, described it as an Eight-farthings land.²

¹ I copy literally Mr Morrison's note on this subject:—"There is something improbable in this anecdote, let the Reader judge for himself the author may do so also. That is the Author for the truth of this part of the Anecdote do not seem very partial to believe in the influence of spells, or charms himself yet Learned and experienced men may or may not." The Rev. M. Watt strongly deprecates this supernatural adventure, and says that it forms no part of the genuine tradition. The reply to that objection is that it is fortunate when folk-lore is recorded by uncultured men, for the incident here related is of great value to the comparative archaeologist.

John Mor Mackay is the unexpected survival of a *Berserkr*; he is of gigantic size, equal in strength to twelve men, and impervious to steel. Odin's berserkers or champions fought without armour, were as mad as dogs or wolves, were as strong as bears or wild bulls, killed people at a blow, and neither fire nor iron told upon them (Laing's "*Heimskringla*," vol. i. p. 221). Twelve of them seem to have formed the chief followers of several ancient kings (Vig., "*Ice Dic.*," *sub voce*). In our case twelve men are sent to capture one.

Everyone knows that Macbeth was weapon-proof to ordinary men, and there are many examples of invulnerability in gods, men, and monsters in classic antiquity, but it is here told for the first time, as far as I know, how the protecting charm or magic spell could be broken, viz., by severing connection with the earth. However, this idea is cognate with what is told of Anteus, son of Poseidon and Ge, a mighty giant and wrestler, whose strength was invincible so long as he remained in contact with his mother earth (Smith's "*Dic. Myth.*"). But did the Gall-Gael of Uig get this notion from a classical source? Is it a remnant of the learning of their ancient clergy?

² It appears probable that, when the Hebrides were under Norse domination, every house or family had to pay one penny as *skattr*, seat or tribute to the king or his earl; hence the land considered necessary for the support of one household was called a pennyland; but as the population increased many had to be content with a fraction of a pennyland, such as a farthing-land, or even less.

If only one family lived within the township it was a pennyland, such as Penny-

On obtaining it John Roy intimated to the tenants that they would have to remove, as the land was his for life. There was then living at Crolista a man called the *Breabadair Ruadh*, or the Red Weaver, who held the ninth part of that farm, and who was ordered to remove along with the rest. This man went to the Chief at Stornoway and told him that he, the Red Weaver, and those before him, had always been at Crolista, and asked to retain the One-farthing land, which was not contained in John Roy's grant. The Chief directed that the Red Weaver should not be disturbed in his holding.

The Red Weaver, exulting in his success, returned to Uig, and made the same known to John Roy, and ever afterwards the Red Weaver was a thorn in his flesh, and a bitter ingredient in his cup. The Red Weaver was offered the ninth part of the lands of Crolista in one piece, but he insisted upon having the ninth part of every farthing-land in the place, and enclosed each by a dike, the ruins of which may be seen to this day.

Although the Red Weaver gave all this trouble to John Roy, he yet forbore to molest him. The Red Weaver had now become old, and had lain in bed for some years in a house at Kirkibost, Bernera, and on the occasion of Mackay's execution Donald Cam ordered the old weaver, in revenge of the trouble he had given, to be brought out of the house and killed on *Unoc na mi-Chomhairle* (pron. *krokna mi-kourly*), i.e., the Hill of Evil or Unfortunate Counsel, which name it still retains.¹ After these tragedies the terror of Donald Cam spread far and wide.

Shortly after this Donald Cam married a daughter of Finlay MacIaran, who had the farm of North Galson, and had several children by her.

Donald; but if the cultivable land was of some extent there would be several families within the dikes or township, and the collective enclosed land would be named from the number of those families, as Five-penny Ness.

The households never had their lands all in one piece, but every year, or it might be every three years, a fresh division was made of all the rigs or plots of arable land within the township, and so great was the litigious spirit amongst the tenants that sometimes no agreement could be arrived at, and the rig or spot in dispute had to be dug and sown in common, and the produce divided among all. This explains how the Red Weaver refused to have his farthing-land all in one place.—*Cf.* "Tribe Communities in Scotland" (Skene's "Fordon," vol. ii. p. 441).

¹ The execution of the Red Weaver is certainly mythical; something very bad has no doubt been done on the "Hillock of Evil Counsel," and it has been fathered on Donald Cam, with the disagreeable weaver for the victim. *Unoc na mi-Chomhairle*, Bernera is marked on the Ork. Six Inch Map.

The South Dell Tenants.—We ought in our own day to be very thankful to that Divine Providence which has dispelled the barbarous darkness and depression from our land, and shed upon it the light of the Gospel, for there are many things related of the hero, Donald Cam, which are revolting to humanity. It is told that Donald Cam had a foster-mother who used to go about the country begging for meal, &c. She was at one time down at Ness, gathering meal in summer, and she was returning by South Dell, in which there were then six tenants. The tenants, seeing a woman with a bag of meal on her back, agreed with her to let them have the meal till the following harvest, when they would pay it back, and more besides. To this the woman consented, yet when she returned to Uig, and Donald Cam asked her what success she had had at Ness, she complained that the tenants at South Dell had taken the meal from her without giving her anything in return.

Donald Cam went to Ness, and when he came to Dell these poor tenants were in the ebb (foreshore), seeking shell-fish for food, for those were years of great scarcity. Donald Cam waited at the flood-mark till these poor victims came up to him. He asked them no questions, but ordered each to dig his own grave; and when they had done so, he killed all the six, and buried them there.¹

Starring the Blind Woman.—Donald Cam and the Gow Ban (of whom more anon) were one day walking together at Kneep, close by a small bothy in which an old blind woman lived. Some of the tenants' wives were sitting outside the bothy talking together, and one of them remarked that they need have no fear of an enemy attempting to invade or plunder them, for there were few like Donald Cam and the Gow Ban in all the country. The blind woman from within asked who were they whom they were praising so much? On being told, she indignantly exclaimed: "Had you seen the men who fought the battle of Machir-house (a strand and level spot at Reef); I say had you seen those heroes who repulsed and killed a Danish pirate and crew, you would not say that either Donald Cam or the Big Smith is a man of such valour and prowess." Donald Cam and the smith asked what the blind woman inside was talking about, and when the women told them, they fell to and blocked up the door of the bothy with stones, and threatened with instant death anyone

¹ This tale is certainly mythical, and yet it becomes credible in an age in which a son could set fire to the house in which his mother was sleeping.

who should give food or drink to the old blind woman, so being left to starve she soon died.¹

The battle alluded to was fought by a Danish pirate who landed his men at Berry or Reef, and who thought to have plundered the country with impunity ; but the clans faced the Danes as they landed, and a bloody battle ensued, when all the Danes except three were killed on the spot, and of the three who ran to their boat to save themselves, one was shot dead by an arrow. It was the warriors in this battle to whom the blind woman alluded, and for which she was starved to death.

John Du Chroig.—At a time when the Morrisons, the Macaulays, and the Macleods were somewhat at peace, word was brought that a well-armed ship was at Barra,² which it was conjectured had been sent to subjugate the Long Island clans, and to bring the guilty to punishment.

The clans in Lewis held a council of war, with the result that they set off in a body in the Judge's galley and two other large schuyts, and the next day boarded the ship and killed all the crew, except one man, his wife, and their child, who had the Gaelic speech. The boy was John Du Chroig,³ i.e., Big-fisted Dark John, and it is from him that the Mackinnons of this part of Lewis are sprung. Donald Cam made choice of him as his personal attendant ; he was active and clever, and could keep Donald Cam at bay with the small sword, but he had not strength to play the broad sword.

Donald Cam had to betake himself to places of retreat in the most sequestered parts of Uig, in duns, upon islands in the lakes, or in caves, to which he and his friends could resort safe from the invasion of their enemies, or when they did not think proper to engage at a disadvantage.

Donald Cam and John Du Chroig took up their abode on an island in Loch Burravat,⁴ a lake a few miles to the westward of the Manse of Uig. There are still to be seen the ruins of a dun upon the island, which was approached on the north side by very large stepping-stones ; those which are near the shore are above water, but farther out they are submerged. Those stones which are

¹ Such an event as this has no doubt occurred, but it is hard to believe that it happened in the beginning of the seventeenth century.

² This appears to be the piratical seizure, before 1610, of the ship of Abel Dynes, merchant of Bordeaux.—Gregory's "Hist. Highlands and Isles," p. 346.

³ *Chroig*, Gaelic, big-fisted ; a paw.

⁴ Burravat, for *Borgar-vatn*, Ice. — Castle-lake. This name always indicates the existence of a Pictish tower.

above water are in the same straight line, but where the submergence begins the stones are farther apart, and a large bend or divergence takes place in their direction ; this is a stratagem to drown an enemy who should attempt to invade the island in the night-time. Here the two spent some time, living mostly on fish and venison. They had a boat at Gallon Head, which they used to hide in such a way that no enemy could steal or find it.

One day they were out fishing, when John Du Croig was pulling, and his master was hauling in the long lines. The sea was rather rough, but John Du was doing his best, when his master said : " Pull the boat ahead better." John Du replied : " Better I cannot do, and what I cannot do you may do yourself." Donald Cam let go the fishing-line and drew his dagger ; John Du, perceiving this, instantly launched both oars out of the boat, and he himself plunged into the sea.

John Du struck out for the beach at Aird Uig, where he got on shore, went home to the island in the lake, made a good fire, swept the house, and put everything in order. Donald Cam, being deprived of the oars, was tossed about for some time till he was able to get hold of one oar and then the other ; he hauled up the lines and went on shore, much dejected at the loss of John Du Croig, whom he supposed to be drowned ; but when Donald Cam came in sight of the lake, he saw, to his great joy, smoke ascending from the dun.

When Donald Cam came in he found the house in order and John Du sitting before a roaring fire. After Donald Cam had sat down and warmed himself, he turned to John Du, and said : " You foolish fellow, what made you throw the oars out of boat ? " John Du replied that if he had not thrown the oars out of the boat he might as well have remained there himself, and that it was the only way to escape from his senseless fury.¹ Donald Cam said nothing, but smiled, and bade John Du get the supper ready.

John Du Croig was one summer season fishing in the sound of Shiant, and living on the islands opposite the Park. It was a time of great scarcity, and as there was no provision at home, he had brought his aged mother along with him. She had been there but a few days when she died. John was now in a

¹ It is curious to trace the persistence of family characteristics ; for with regard to the passion of rage, I have been told that were I to be fishing in the same boat for a few months with some of the Macaulays of Lewis, I would be able to make a pretty good guess as to what sort of folks their ancestors must have been ; peace or war is all one to them. I must add, however, that all those I have had to do with were well-disposed men.

great dilemma, for he wished his mother to be buried at Uig, at the same time he was loth to loose his fishing. To obtain both objects he disembowelled the corpse, and hung it up to dry in a cave, and when the fishing was over he carried the body of his mother home to Uig, and buried it among her friends and relations. This proceeding was rather barbarous,¹ yet considering the times and the want of cultivation in uneducated men, we must excuse John Du Chroig.

The Gow Ban.—One of the best warriors of the parish of Uig was the Gow Ban,² i.e., the Fair-haired Smith, who lived at Kneep, quite close to Donald Cam, who was settled at Valtos. The Gow Ban was a stronger man than Donald Cam, but was not so clever with the sword. The smith had a cess of grain³ from the parish, and when a cow was killed for domestic use, the smith had a right to the head;⁴ but Donald Cam had neglected to pay his dues to the smith for seven years.

It happened that a horse belonging to Donald Cam fell over a cliff and was killed. Donald Cam had the head of the horse skinned and sent to the Gow Ban. The smith saw plainly that it was the head of a horse; however, he said nothing about it, but ordered the head to be dried and taken care of. Not long after Donald Cam sent his servants to the smithy with iron to make new, and repair old, work; but the smith put all the iron together into the fire and welded it into one lump; he then told Donald Cam's servants to take the iron to their master, and tell him that he would not do a stroke of work for him until the seven years' dues had been paid.

When the servants were gone, the Gow Ban, as he was no match for Donald Cam with the sword, took the precaution to make red-hot about six feet of a long iron bar. As he expected, Donald Cam was soon seen coming along in battle array, on which the smith came out of the smithy with the hot iron bar, by which he forced Donald Cam to fall back, and he went home greatly displeased.

¹ The proceeding seems barbarous indeed; yet on the death of the mother of Queen Anne Boleyn her "entrayles were taken out and buried accordingly; and the corps was spiced and cryered," &c., so that after all John Du might have had sufficient precedent.

² *Gobha Ban*, Gaelic, Fair (haired) Smith.

³ See "Traditions of the Morrisons," "Proc. Soc. Ant. Scot." vol. xii. p. 529.

⁴ "Before Money became current, the Chieftains in the Isles bestowed the Cow's head, feet, and all the intrails upon their Dependants; such as the Physician, Orator, Poet, Bard, Musicians, &c., and the same was divided thus: the Smith had the head, the Piper had the, &c."—Martin's "Western Isles," p. 109.

The next day Donald Cam returned, and promised to pay the smith all the dues which had been owing to him so long, on which they became friends, and the smith invited Donald Cam to dine with him on the morrow. The smith gave orders to make ready mutton and beef, and also to have the horse's head boiled in a separate pot, and presented as if it had been a cow's head. After that they had sat down to dinner, Donald Cam said : "This beef and mutton are too fat to please me, help me to some of that cow's head." The smith was now at the summit of his design, and handed the dish with the horse's head to Donald Cam. He wrought at it for a good while, when the smith asked him how he liked the head. Macaulay liked the head-beef very well ; it was savoury and delicious. "Well," said the smith, "that is the very head you sent me lately from your own house."¹ At this, Donald Cam started up and went home. The smith well knew what to expect, so he went to the smiddy and had recourse to his friend the iron bar, and not before it was time. For presently Donald Cam was seen hurrying over the road, but the smith went out with his hot iron bar, and Donald Cam was a second time repulsed. Yet for all that, when there was any emergency Donald Cam would always have the Gow Ban with him.

Battle of the West Side.—It is told that a ship came to anchor at Eanishgarry, close to Kirkibost, Bernera. Neil Macleod and Donald Cam headed a party of the islanders, boarded the ship, and killed all the crew ; they found so much money in the ship that Donald Cam's helmet was used to mete it out.² In consequence of this piracy a cruiser was sent to Stornoway, and the castle was occupied, but Donald Cam and his two brothers retook the castle and killed most of the invaders ; but one of the brothers was killed at South Beach by a shot from the castle.³

On this repulse the King of Scotland gave permission to anyone to conquer Lewis. This encouraged Macdonald of the Isles to invade Lewis with a large

¹ There is something more in this tale than merely tricking Donald Cam into eating his own horse-beef. To eat horse-flesh was a mark of idolatry, and an abomination to the Christian Northmen, and it was a great insult to reproach a man with having done it ; so that to trick Donald Cam into eating horse-flesh, was to make him appear as if he was no Christian.

² This seems to be a confused remembrance of the capture, in 1610, of the "Priam," Capt. Love, a pirate, who put into Loch Roag.—Gregory's "Hist. Isles," p. 336.

³ Neil Macleod took Stornoway Castle from the Fife Adventurers in 1607, and in 1610 he again captured their camp at Stornoway, or at Holm.

body of men, on which Neil Macleod called upon the clans to stand up for their country.

At this time there was a tribe of men, called Maclaren, dwelling on the west side of Lewis, who, on the promise that if successful they should hold their lands free, or, if otherwise, they should have lands given them in Skye, had pledged to support Macdonald. So when the Battle of the West Side begun, Macdonald called out: "Separate, separate yourselves, Maclarens; do to-day as you promised yesterday." Then one hundred and forty of the Maclarens, wearing blue bonnets, went over to Macdonald's army. The battle lasted the whole day, but the Macdonalds and Maclarens were worsted. Macdonald himself narrowly escaped, and but few of his men, or of the Maclarens, succeeded in reaching Skye. Instead of lands Macdonald only gave them a cow and a boll of meal, and told them to go about their business, for that he could have no confidence in them as they had betrayed their country and their chief. The Maclarens never had any footing in the island after that memorable battle.¹

The Burning of the Morrisons in Dun Carloway.—Donald Cam and the Big Smith went one summer season to the Flannan Isles, and the Morrisons of Ness, hearing the Macaulays were from home, came and drove away the cows from the moor, for there was no one to oppose the invaders. When the party from the Flannan Isles² came back, the wives told what the Morrisons had done. The Macaulays immediately started in their boats across Loch Roag, to try and overtake the spoil. When they came to the opposite shore, they saw that the cows were grazing near a loch, by which they knew that the Morrisons were in the strong fortress of Dun Carloway.

The Macaulays rested themselves by the shore for the night, and, on the

¹ There is no notice of this battle anywhere else. It is certain that there was no one of the name of Maclaren in Lewis in 1861. The tradition is general that those Maclarens who remained in Lewis, changed their name, some say to Campbell, others to MacIennan.

"There are places in Lewis which still retain the name of the Maclarens, such as *Buain Chlann Leadharain*, i.e., the mountain gorge of the Maclarens."—Rev. M. Macphail.

² This group, sometimes called "The Seven Hunters" by sailors, is ridiculously misnamed the "Flannel" Isles on the Ord. Six Inch Map. They were dedicated to St Flannan, the patron saint of Killaloe (Reeve's "Columba," p. 227); his stone-roofed chapel is still standing on Eilean Mòr (Muir's "Chars. Old Ch. Arch." p. 180); and there are other primitive dwellings there. The islands are described by Dean Monro ("Mis. Scot.") and by Martin ("West. Isles," p. 15).

morning, as they were exhausted for want of food, Donald Cam¹ and the Big Smith went alone to reconnoitre. When they got near the Dun they saw a large kettle over a fire, and a whole carcase of one of the plundered cows was in it, and a man was lying asleep near the fire. The Big Smith held the man till Donald Cam drew out the beef, and then they threw the cook into the kettle. The smith rolled the boiled beef in his plaid and carried it to his famishing party, while Donald Cam went towards the dun. The Macaulays having come up, Donald Cam stabbed the sentry at the door of the dun, and left the Big Smith there to prevent anyone from coming out. Macaulay then climbed the walls of the dun by means of two dirks or daggers as steps, changing them by turns until he got to the top of this uncouth edifice. The dun tapered, till at the top it was covered by one large flat stone.² Donald Cam ordered his men to pull heather and make it into large bundles, which he threw into the area of the fortress, and when it was full he set fire to the heather, and so smothered and burnt all the inmates. Then the Macaulays demolished that old fabric called Dun Charloway, which was built in the fourth century by a giant named Darg mac Nu-aran. There are two other similar duns in the parish of Uig, which were built and inhabited by two brothers of Darg; the one at the Sands of Uig belonged to Knock mac Nu-aran; the other, at Kirki-bost, Bernera, where Tìd mac Nu-aran dwelt.³

¹ "Tradition says Dun Charloway was once taken by an individual notorious in the traditions of Lewis, named 'Donald Caum M'Ciul,' who, by means of two dirks which he constantly carried about with him, one of which he alternately stuck in the turf that covers the outer stone dike of Dun Charloway, raised himself up to the summit of the parapet, from which the inmates were wont to shoot their arrows at the assailing foe. Donald Caum, once in possession of the parapet, made the sleeping inmates easy victims to his resentment during the darkness of night."—N. S. A. Ross, p. 163.

² This is generally supposed in the Long Island and elsewhere. The Rev. Dr Joas has explained to me that on his side of the country, the ground cells, which are in the thickness of the wall, have been noticed to be roofed by overlap, until a single flat stone was sufficient to cover the remaining aperture; and then it was inferred that the same method was applied to the main tower, which of course was a great mistake. As I have drawings and descriptions of Dun Charloway preparing for publication, I need not anticipate here.

When at Charloway in 1863, a hale old man came up to talk; so, turning to the dun, I said: "They tell me the dun was pulled down by Donald Cam Macaulay." He answered: "I am tenth in descent from Donald Cam." He, when in the militia, had been stationed in the south of England, but much preferred Lewis; he showed me his croft and complained of the high rent; it was twopence per day.

³ These Ossianic giants will be noticed elsewhere.

*Battle of Drum na' Càrnan.*¹—The sons of the Brieve, John Morrison, went to Rona² to gather eggs, sea-fowl, &c.; and when this was known at Uig the Macaulays started for Ness to plunder the cattle of the Morrisons. The Brieve was old and blind, and there was no one there to oppose the spoilers, so all the cattle were driven away. The old Brieve sent a man to watch for the return of his sons, and when he heard that they were approaching, he ordered the greatest variety of food to be carried to meet them at the shore; and also the bearers were to observe particularly what the sons would do when they were told of the disaster. When the Morrisons heard what had happened, they did not stay to partake of the feast, but taking a large draught of ale and a lump of beef in hand, they set off in pursuit of the Macaulays. This was told to the Brieve; he then said, "As sure as they partook of the beef and of the ale, they will be hearty and strong, and ere they return they will give cause to many of deep sorrow."

They overtook the Macaulays at Brue, the first village west of Barvas, and attacked them, killing a great many, and their graves are pointed out to this day. The Morrisons encountered the Macaulays again at Arnol, in such manner that only three escaped—Zachary Macaulay,³ and two of his near relations. The Morrisons pursued them as far as Carloway, and were about to give up the

¹ The account of this battle is founded on information from the Rev. M. Macphail, compared with notes by the Rev. J. Strachan, Rev. M. Watt, &c.

² This is North Rona, or *Ronaidh an t-abb* (for *Haf-Roney*, i.e., = Ocean, or Main-sea Rona) to distinguish it from several other islands of the same name. Mr Muir describes St Ronan's chapel there ("Chas. Old Ch. Arch." p. 189; and "Arch. Scot." vol. v. p. 246); for a good account of the former condition of the island see Martin's "West. Isles," p. 19.

³ This unusual Christian name occurs but four times in the indices of Burke's "Landed Gentry," which contain about 5000 names.

The name is almost peculiar to the families of Malcolm of Poltalloch and the Macaulays of Lewis. As I find that "Zachary M'Callume" was a grand-nephew of the celebrated Rev. Zachary Boyd, the Malcolms may have got the name from him. But I have failed to get any suggestion as to how the name of Zachary got to Lewis. The "Indweller" notes that Iskair (*Sgarr*, Zachary) was the progenitor of the Lewis Macaulays; he is very far astray in respect of his own clan, and his assertions cannot be accepted in either case. Yet there is usually some small substratum of fact in every (real) tradition, and a Zachary may have been affiliated with the Macaulays about the Reformation period. There are several Zachary Macaulays now in Lewis (Rev. M. Macphail); and there is, or was lately, a Zachary Macaulay in Loch Broom (Mr Seton); besides which, the present Chief of the Macaulays, as he himself informs me, bears the name of Zachary.

chase ; but, on meeting an illegitimate brother¹ who dwelt there, he persuaded them to follow on to Callernish, as he was sure he knew the place to which the fugitives would retreat. When they got to Callernish he led them to the brink of a rock, below which there was a score, like a bed-place, in which Zachary and his two companions were sleeping, and it is still called Zachary's bed. The Morrisons were for leaving them unharmed ; but when the brother from Carloway heard this, he took a dagger in each hand, jumped down upon the breast of the sleeping Zachary, which was crushed by his weight ; and he stabbed the other two.

When the Breive heard what had been done he was much displeased, and cautioned his sons to have no dealings with him or Carloway, for his ungovernable passion was not to be trusted. It is told of this wretch that once, when he was leaving Carloway, his child cried after him and was not willing to return home, when the brutish father seized hold of the child and hurled it into the river.

When Neil Macleod fortified himself at Berrisary Donald Cam did the same on a rock to the westward of Uig, which has since been called " Donald Cam's Stack." He was there attended by his daughter, known as " Big Anne," who used to carry to him milk and other provisions over the sharp and dangerous crag which connects the high rock with the mainland. But after a time, so says tradition, he embarked for Ireland, and, having greatly distinguished himself there, he received a pardon for all past offences, and settled down quietly in Uig, where he devoted himself to farming and the welfare of his family, and there died before he became an old man.

The traditions of Donald Cam² have usually a foundation in fact, but the dates, and the names of persons and places, are often much confused ; these may be corrected, in some degree, by comparing together the parallel traditions from different parts of Lewis. It is to be remarked, as showing the weight of power, that the sinister influence exerted by the Mackenzies on the fortunes of the Sìol Torcuil is altogether suppressed or ignored ; the bards have found it convenient to make their narratives agreeable to the reigning dynasty.

¹ This is the person referred to as the " Wicked Incendiary " in the " Traditions of the Morrisons " (Proc. Soc. Ant. Scot., vol. xii. p. 553).

² On the moor, in the parish of Lochs, is a place " that still retains the name of ' Ari Dhoil Chaim ' or Donald Cam's shieling. This Donald Cam was a noted character, who resided in the parish of Uig, in this island, seven generations ago."—New Stat. Act. Ross, p. 157.

The first notice of Donald Cam is that he was one of seven persons who were seized, along with the young Chief of Lewis, Torquil Du, by the Brieve of Lewis. Torquil Du was murdered at Ullapool in July 1597; Donald Cam, however, along with Alister Small-heel Macleod, escaped to Dunvegan, and, on their return to Uig, Donald Cam revenged himself on one of his captors, John Roy Mackay.

In 1607 Stornoway Castle was taken by Neil Macleod, assisted by Donald Cam, on which occasion Angus, a brother of Donald Cam, was killed by a shot from the Castle. About this time the ship of Abel Dynes, a Bordeaux merchant, was piratically seized by the Macneil's of Barra, in which transaction Donald Cam and other Lewis men were, it seems, likewise engaged.

In the record of the Privy Council, 24th July 1610, there is: "Warrant to Rory McLeod of Hereiss to keep in his custody until the last day of May next, Donald Cam McCoull and Mulcallum McCoull to the effect the Lords of the Council may at that time give such other directions anent them as shall seem most meet and expedient for the quietness of the country."¹ The traditions of Lewis are thus corroborated by Public Record. About this time Donald Cam must have fortified himself on the "Stack" which still bears his name.

In 1613 Neil Macleod was, by a cruel stratagem, forced to evacuate his fortress, and it is probable that Donald Cam then made his peace with the Mackenzies. The story of Donald Cam Macaulay going to Ireland, of his being the hero of the Battle of Beul an Droichid, and, as a consequence, receiving the pardon of the Scotch government, seems based upon a ridiculous confusion. The Battle of *Beul na Troichid*, i.e., the Battle of the Mouth of the Bridge, was fought in 1495, and a Donald Cam was there, but it was Donald Cam Mac Dounechaid, a chief in Sligo. It is true that in 1595 Rorie Mor Macleod of Harris (Ara) landed at Lough Foyle, with 600 men, to assist O'Donnell, and Donald Cam Macaulay may have been among them; but he would certainly not have received any reward from his own government, and, besides, we find him in rebellion long after that time.

The Fortune-Teller.—One Christmas Angus Macaulay had collected his friends and kinsman to pass the festive season at Brenish. At that time a fortune-teller came to the house while Donald Cam and the rest were enjoying themselves in their room. It seems the fortune-teller, who was in the kitchen, was not pleased with his treatment. He was a palmister, and pre-

¹ Gregory Collections, MS.

tended to foretell events by looking into the palms of his hands ; so he foretold to the servants that the master of that house would not live to enjoy many more Christmases after the present.

This prediction came to the ears of the goodwife, and her countenance at once bespoke the trouble of her mind. This was observed by all the guests, and her husband wanted to know what was the matter. She was very unwilling to tell, but as they all insisted on knowing, she at last said that the palmister had predicted a short life to her husband. Donald Cam bade the mistress go to the fortune-teller and ask him how long he (the fortune-teller) had yet to live. The mistress went down and asked the question, when the palmister looked into the palm of one of his hands, and concluded from what he saw that he would have a long life. The mistress returned to the room and reported what the palmister had said. Donald Cam replied that one of the predictions was false, and took hold of the *Chaum*, a name which he gave to his gun. The servants perceiving this, told the fortune-teller to escape, which he attempted to do, but Donald Cam ran after him and shot him near the house at Brenish, at a spot since then called *Leob a Phalmaisteur*, or the Palmister's Rig.

Angus Macaulay of Brenish.—The Lewis clans were called out to fight the English,¹ and the Uig contingent, which contained the three sons of Donald Cam and nearly all the able-bodied men in the parish, took boat on their way to Stornoway at *Laimhrig Fir Uige*, i.e., the (natural quay, or) embarking-place of the men of Uig. This place has been avoided and disused ever since, for it was noted that not one came back of all those who had embarked there ; John Macaulay having, by some accident, crossed the loch to the opposite side from another landing-place, was the only one who returned. When they got to Stornoway the Uig men, in council, decided that Angus Macaulay, much against his will, should return, that there might be one at least to lead and defend the country in their absence. But his wife was a shrew, and when she

¹ It was not against the English, but against the Royalists, under Montrose, that they went to fight : the vacillating George, Earl of Seaforth, was at that time on the side of the Covenanters. The place, Seaforth, from which the Earl took his title, is now known but to few, nor is it marked on the Ork. One Inch Map of Lewis. It is an unimportant, desolated little farm on the north bank of the *Sjor* (Sea) which gives name to the *Fjörðr* (Firth). Besides having given name to a powerful earldom, the ruin of the cottage is further remarkable as indicating the absence of superstition and of veneration in the builder, for three standing-stones, *in situ*, in the periphery of a small Druidic circle, are built into the walls.

met him at the place now called *Clach Aonghais*, or Angus' Stone, she gave him a contemptuous welcome in Gaelic verse : *Dh'fhalbh na fir agus dh'fhuirich na fideacha-di de*, i.e., "The men have left, and the pigmies have stayed at home."¹

Stung by this reproach, without entering his house or taking refreshment, he at once returned to Stornoway ; and very shortly afterwards Angus, his brother William, and all the Lewis men, excepting only John Macaulay of Kneep, Angus Macleod of Kirkibost, and a West-side man, were all killed at the Battle of Aultdearn.²

William Macaulay, the youngest of the brothers, who was settled at Islavik, was so expert as to be able to fight with two swords at once, that is, with one in each hand. William, after all the Lewis men had been killed around him at Aultdearn, with his back to a wooden paling in a gateway, defended himself with a sword in each hand against his enemies ; but they climbed into the loft and got above his head, and so killed him.

When John Macaulay and his two companions fled from the battle they were pursued by a trooper, who, as he drew near, roared out furiously : "I am Alister Ower,³ the Butcher," meaning that he made such carnage that he was called the slaughterer, and he thought that, by giving himself such a terrifying name, the Lewis men would be so dismayed as to surrender at discretion. The Lewis men had but one arrow each, and when they saw the trooper coming, they consulted what they should do. John Macaulay wanted Angus Macleod to shoot, as he was the best marksman. But Angus thought, as John Macaulay was stronger to bend the bow, that John should try to knock the trooper off his horse. By this time the trooper, who was Alexander Macdonald, the famous Argyll warrior, had advanced within bow-shot and was coming forward with his shield held before him, to protect himself against the arrows of the Lewis men ; the brave John Macaulay let fly his arrow, which fairly struck the shield of the huge Macdonald and brought him, shield and all, to the ground. Macdonald got up and mounted again as fast as he could ; but this time he

¹ Rev. M. Macphail, Kilmartin ; to whom I am indebted, as usual, for the correct spelling and translation of the Gaelic.

² This battle was fought on the 4th May 1645, between Montrose, for Charles I., and General Urry and the Earl of Seaforth for the Covenanters. "Seaforth's principal ensign or standard-bearer . . . stood to it with some others of the Lochbroom and Lewis men, till they were all killed" (Mackenzie's "Hist. of Mackenzies"), p. 189.

³ *Othar*, Gaelic, dun, sallow. Of course, it is the famous Colkitto who is meant.

placed his shield behind him and rode away, exclaiming: "Farewell, Lewis men, I have had as much of your shooting as will serve me this day."

On the approach of night the three fugitives betook themselves to a wood for shelter. While resting there they saw the flash of powder, and heard near them the report of a gun. John Macanlay said: "Surely that gun was fired by a foe," and although the shot had done no harm, he took one of the two remaining arrows, and shot by chance in the direction in which he had seen the flash. They were not disturbed anymore, and the three got safely back to Lewis.¹

John Macaulay and the Beggar.—John Macaulay was hospitable to strangers, and fond of hearing news. About four years after the battle of Aultdearn a one-eyed beggar from the low country came to Lewis; he went round the island, and at last came to Kneep. John Macaulay gave him his dinner, and then bade him come into his room to give him some news. After a time John Macaulay asked the beggar how he came to lose the sight of his eye. The man said that he was in a wood in which he saw three men, who he believed had fled from Aultdearn, taking shelter; and that, having a gun with him, and influenced by an evil spirit, he fired at those men, although they had done him no harm. He did not know if the shot had taken effect, but presently afterwards an arrow struck him and knocked out one of his eyes. "Well," says John Macaulay, "my right hand discharged the arrow by which you lost your eye." The beggar, on hearing this, exclaimed that he was undone; but Macaulay told him to have no fear, and that he would be a better friend to him for telling him of this adventure.

From John Macaulay, and from his brother Angus, are descended most of the Macaulays that are now in Lewis.

Rev. Donald Macaulay, Kilmuir, Skye.—The Rev. Donald Macaulay, named in Gaelic *Maghistear Domhnall mac Dhomhnuill mhic Aonghais*, i.e., Mr Donald son of Donald son of Angus, being the grandson of that Angus Macaulay tacksman of Brenish, who was slain at Aultdearn.

Mr Donald distinguished himself in his youth by his strength,² courage, and

¹ From Morrison's "Traditions of Lewis," enlarged from notes by the Rev. M. Watt.

² The tradition of the strength of the Rev. Donald Macaulay still remains in Harris. He once saw some children picking out periwinkles with a pin, when he told them he would show them how to get on quicker; so taking up a handfull he cracked and crushed the shells by closing his hand. The *Fear Bhreinis*, i.e., tacksman of Brenish, his uncle, was able to raise a large six-oared boat on end by himself, but the minister could do the same with one hand.

skill in manly exercises, so as to be taken notice of by the best society in the Highlands; and the same good qualities procured him the friendship of some people of note, who, with himself, were finishing their education at the University of St Andrews. Among these were Sir James Macdonald, the laird of the greater part of Skye, and who did not lose sight of Mr Donald until he got him settled as minister of Kilnuir, where his goodness and piety endeared him to all his parishioners.

Mr Donald married a lady who was nearly related to Sir James Macdonald, and the friendship of the laird was continued to his death, which not only caused great grief to the minister, but also brought an unfortunate change in his position and circumstances. Sir James was succeeded by his son, commonly called James Mor Macdonald, who pretended to hold the same veneration and regard for the minister that his father had done, but there were indications in his conduct that his professions were not genuine.

As was observed before, Mr Donald was noted for great strength and skill in arms, and the young laird, who had some claim to the same qualities, was moved to envy by the fame of the minister. Sir James, under pretext of friendship, invited Mr Donald to a feast at his castle of Duntulm, but really for the purpose of challenging the minister. Sir James took an opportunity to propose, as if by frolic, that the minister should wrestle and fence with him, to which a reluctant consent was yielded; Sir James soon found he was no match for Mr Donald, and from that time became his determined enemy; for, some time thereafter, Sir James having again invited Mr Donald to the castle, under the show of hospitality, came to his bedside and was in the act of plunging his dagger into the body of the sleeping minister, when his arm became rigid and his whole body paralysed, so that he could neither move hand or limb. In this posture he continued, with one knee bent under him and his arm upraised, until the minister awoke. Sir James humbly begged that Mr Donald would pray that he might be restored to his natural condition and that his sins might be forgiven; this was done, and Sir James was set at liberty.

As after this adventure Mr Donald had always a suspicion of Sir James, he left Kilnuir and took the parish of Glenelg; and about this time Sir James Macdonald took up his residence at Sleat. Notwithstanding his former warning he continued to bear malice, and to plot the ruin of the good minister. Mr Donald had to preach at various stations of his extensive parish, and, on one Sunday, he left home, taking a man-servant with him, to go to a distant place. He was met by Sir James Macdonald, who pretended that he had come across

from Sleat to attend the preaching at Glenelg. At this time a man came in the way, who had something bulky under his outer. Sir James hailed the man and asked what he had got below his coat ; it was a gallon of *Treas-tarring*,¹ or thrice-distilled whisky. "Come," said Sir James, "give the parson and me a dram." The man had no proper dram-glass or horn, but he had a half-mutchkin-stoup ; well, that would do for a dram-glass, and Sir James and Mr Donald drank the fill of this measure. By this time Mr Donald saw what Sir James would be at, so he said : "Come, never mind that trifling stoup, give us a bottle a-piece so that I may hurry away."

Mr Donald finished his bottle with ease, while Sir James could only manage his with the greatest difficulty, and his head was soon laid upon the ground. Mr Donald left his own servant to take care of him, and then went away and preached. On his return in the evening he found Sir James where he had left him ; by the help of the servant-lads he was carried to the manse and cured of his drink. The clergyman gave him suitable advice, and Sir James, finding all his evil plans recoil upon himself, became quite another man, and the steady friend of Mr Macaulay.²

The Rev. Donald Macaulay lived to a good old age. He had but a small family, but two of his grandsons were ministers ; one was placed in Skye, the other on the mainland.

John Roy Macaulay of Bragir.—The Rev. Donald Macaulay had two brothers—John Roy and Malcolm. Once when John Roy was visiting the minister at Glenelg they were both invited to a feast by Sir James Macdonald at Sleat. There was a cattle-fair in the neighbourhood, and Sir James, with his guests, went to see it. It happened that a certain horse at the fair went mad, and many were trying to catch it, but it defied them all. At last they drove the wild horse to where the minister and his brother were standing, and the men cried out for them to catch it. John Roy Macaulay quite well knew that the crowd expected to have some fun if either himself or his brother attempted to stop the horse ; but, for all that, he made a spring at the horse and seized it by the upper jaw with one hand, while with the other he laid hold of the lower

¹ "The air is temperately cold and moist, and for a corrective the natives use a dose of *Treadarig*" (Martin's "West. Isles," p. 2). "*Treadarig, id est Aquæ vitæ*, three times distilled, which is strong and hot" (*ibid.*, p. 3). In these degenerate days it is no longer a virtue to be able to swallow a large quantity of alcohol without becoming helpless.

² I have omitted much in this legend of what, from a modern point of view, would be considered as profanity.

jaw, and wrenched it out of joint. "Now," said John Roy, "that horse will continue to mock you Skye men from this day; and if you have any more mad horses send them to me." Sir James, after this, offered John Roy a good farm in Skye, but he preferred to return to Lewis.

John Roy had from Scaforth the farm of both Bragirs, which are said to be equal to one-sixteenth part of Lewis. John Roy gave his brother Malcolm a third of this land. They married, and all went well for a time, but John's wife was often rude to Malcolm and his family, although the brothers had the greatest affection for each other.

At one time the bulls belonging to each brother fought together, and Malcolm's bull was the conqueror. After this, John's clamorous wife never ceased scolding her husband, till it ended by Malcolm removing to Barvas. But the separation was painful to both the brothers, and Malcolm only survived the change for two years, when he died of sheer grief. John Roy equally fretted at the absence of his brother, and now that he was dead he deeply regretted having yielded to the importunity of his wife.

However, next year, when grinding at the mill with one of his tenants, John Roy Macaulay fell asleep. While the other man was watching, he saw the form and likeness of the deceased Malcolm enter the mill and stoop down over his sleeping brother. The man who saw the apparition was not in the least frightened or alarmed, and soon the phantom disappeared. After some hours John Roy awoke, and then he told his companion that he had dreamed his dear deceased brother had come into the mill and kissed him. "Well," said the man, "if you dreamed *that* while you were asleep, I saw it at the same time when I was perfectly awake." The tenant told Macaulay that there would be no harm done if he should see to his affairs, and advised him to lose no time in making his will. John Roy agreed to follow that advice and settled his affairs before night, and it is told he died on the following day.¹

Zachary Macaulay was chamberlain of the Lewis at that time, and these two brothers were his cousins; he greatly lamented their deaths, and composed this elegiac stanza on Malcolm:—

¹ The belief in phantoms, second-sight, &c., is almost universal in the Isles; many an obsolete superstition lingers there, which, if noted down, would be of great importance to the comparative archæologist. Those only which are connected with the Macaulays are printed here.

“ B’e Calum cruineached nam fear ;
 Bha e lum-a-lan, de ghean ’s de mhuirn ;
 Leannan millis agus graidh
 Aig gach fear a thàr ort uigh.”

Malcolm was the wheat of men,
 He was brimful of good humour and tenderness ;
 A sweet and dear companion
 To each person of his acquaintance.

Of this Malcolm came John and Malcolm Macaulay, both now (or were) merchants in Stornoway, besides four brothers on the mainland ; all of whom are highly esteemed.

The Glamour of Loch Langavat.—Murdoch Macaulay, the father of Zachary, Chamberlain of Lewis, held the lands of Valtos, Reef, and Kneep, and a vast extent of moor on both sides of Loch Roag.

One summer Zachary went to visit his father's family, who at that season were living at Strome, to which place the milk cows had been brought. Zachary, with his brothers, set off to fish for trout in Loch Langavat, which is seven miles distant. The three young men, with their servants, began fishing opposite to an island in the loch, when presently John saw a deer grazing upon the island. John Macaulay considered how he could carry his gun dry while he was swimming to the island, and succeeded in doing so. But the deer on seeing him disappeared in an instant. John searched for the deer throughout every foot of the island, but could find it nowhere, and, wondering what had become of it, he swam back to where his brothers were fishing. He told them how he had missed the deer, when all the party looking up, saw the deer grazing in the same place as before. The brothers charged John with negligence in his search, and Donald said, “I'll go along with you this time, and then the stag shall not escape us both.”

The brothers swam to the island, when the deer was again instantly out of sight, and although they hunted for it everywhere it could not be found. John Macaulay now began to be very sick, and to shiver all over, when his brother gathered a heap of heather, and, putting fire to it, it was soon in a blaze. John warmed himself at the fire, and the shivering ceased, but he said to Donald, “Brother, this is the last time I shall warm myself.” “The last time?” said Donald ; “Oh yes,” said John, wishing to put his brother out of suspicion of

the thought which was in his own mind, "the last time upon this island." In a little time they both took to the water to swim ashore, but ere they had got half way, Donald, in some alarm, called out to his brother that he was swimming too deep and slow; but John only answered, "Dear brother, save yourself, for I am gone," and sank from sight.¹

Donald got ashore, and, with Zachary and the servants, returned to Strome. Their mother inquired for John,—at first they said he had gone to look after some horses, but after a while they told the truth. A boat was dragged from Loch Roag across the moor to Loch Langavat, and before long all that remained of John Macaulay was taken out of the water. The death of this young man caused many tears in Lewis; and every Wednesday, which was the day on which he was drowned, his mother, for a whole year composed an elegiac song about her lost son. The lady was from Skye, and was largely endowed with the poetic temperament.

Zachary Macaulay, Chamberlain of Lewis.—Zachary Macaulay was the great-grandson of the hero Donald Cam. Zachary studied to be a minister at the University of St Andrews, and passed the divinity hall before he left College. The professors there, finding he possessed great genius, took much interest in his education, and he likewise made the friendship of a young nobleman, whose influence was afterwards of great service to him—William, Earl of Seaforth. When Zachary left college and returned to Lewis he raised such a favourable impression in Earl William that he was made Chamberlain (or Factor) of Lewis. He continued in this situation for twenty-seven years, and during all that time gave entire satisfaction both to the Earl and his tenants.

Zachary Macaulay was an excellent Gaelic poet, and some of his poems, which have been copied into Gaelic song-books, are still greatly admired.² In one of these he speaks in a sublime strain of a young lady with whom he was in love, comparing her to a most brilliant star, diffusing light and comfort to all inferior and surrounding objects. In other poems he speaks of the creation and of

¹ Mr Millbank's gamekeeper, Murdo Macaulay, told me that when the body of the lad was recovered a figure of a flounder was noticed upon the abdomen. For some of Murdo Macaulay's stories see Rev. G. Hucheson's "Reminiscences of the Lewis," p. 233.

² Macaulay is the author of "Ioram na Truighe," a poem written in honour of Mackenzie, the Laird of Kildun; and of "Gliogram Cas," the air of which, under the name of Liggeram Cosh, was a favourite with Burns.—Fraser's "Earls of Cromartie," vol. i. p. 39, note.

animated nature, all testifying to the infinite wisdom which does nothing in vain. Zachary was respectably married, and had two sons, Alexander and Dugald.

When the first Pretender made a vain attempt for the British crown Earl William joined his standard, and, in consequence, he had to fly to France and his estates were forfeited. Zachary Macaulay was summoned to Edinburgh to give the Council an accurate account of the rental of the Seaforth estates. When before the Council he was asked whether he knew that Earl William intended to join the Pretender, and whether he advised him not to do so. This he refused to answer. He was then asked if he had remitted any money to Seaforth after he had gone to France. Macaulay replied that as Seaforth's factor it was his duty to send him money or anything else he wanted, and he hoped he should not be restricted from supplying him with the means of supporting himself in a foreign land. A copy of the rent-roll was then asked for, and produced. He was ordered not to send any more money to Earl William, but Macaulay said the whole north of Scotland would rise in rebellion if Earl William was kept in want. At last it was agreed that he might send him a little money, and that the Council would correspond with Macaulay after he got home. One of the Council asked Macaulay where he was born and brought up. It was in Lewis. "Oh, well," said his lordship, "your mother did a good turn on the day in which she brought you into the world.

After a time Macaulay received instructions to send one-half of the rents of Lewis to the Earl, but the whole rents of the mainland estates, and half of those of Lewis, to Edinburgh. Macaulay sent Colonel Murchison the first year from Kintail to France with supplies for Earl William, and the next year he sent Murdo Du Mackenzie, Tacksman of Lochs, who was grandfather of Kenneth Ban Mackenzie, the famous swordsman. Colonel Murchison and Murdo Mackenzie went alternately to France, and while they had the money upon them they travelled only at night and rested all day.

Earl William was in France for seven years, when he was allowed to return, principally at the intercession of two distinguished noblemen whose friendship Mr Macaulay had gained when at the University of St Andrews. Earl William was received at Brahan Castle by all his friends, among whom was Zachary Macaulay; and the Earl often said that he owed the happy position of his affairs to the able management of his factor, who continued in the management of the Seaforth estates till he died at a good old age.

This tradition of Zachary Macaulay is made up of truth and fiction; that he was considered a good Gaelic poet, and that he was Chamberlain of Lewis, is

undoubted ; but that he was permitted or directed to send half the Lewis rents to Earl William is incredible. Many traditions connected with Earl William, but which are apparently fabulous, are recorded ; as they have nothing to do with the history of the Macaulays they are omitted.

The Battle of Sheriffmuir was fought on Sunday, 13th November 1715, and it was a virtual defeat to the Earls of Mar and Seaforth. In February 1716, Lewis was reduced by Colonel Cholmondly, when the Earl fled to the mainland, and afterwards to France. The Earl of Seaforth was attainted on the 7th May following, and his estates forfeited to the crown.

In March 1719, Seaforth was again in Lewis, crossed to Loch Alsh, and in May fought the Battle of Glenshiel, where the Earl was wounded ; although not defeated, the insurgents immediately disbanded, and Seaforth again escaped to the continent.

On 12th July 1726, Seaforth received a "simple pardon" from George I., and George II. made him a grant of the arrears of feu-duties due to the crown from his estates while forfeited. From this time he appears to have lived quietly on his estates, until he died on 8th January 1740, and was buried in the church of Eye, in Lewis.

Although the Seaforth estates were forfeited in 1716, the rents, or a portion of them, continued to be remitted to the exiled Earl. The tradition of the part borne by Colonel Donald Murchison in this affair is told at length in the recently published History of the Mackenzies, and its truth is generally substantiated in the report of General Wade. The position of affairs as regards Lewis is lucidly described, up to 1721, in the following letter of Zachary Macaulay, which also contains interesting information concerning Lewis at that date :—

"STORNØVA, *February* 22nd, 1721.

"GENTLEMEN,—Yours of the 16th January I received upon the 8th of February. It's not practicable to convene the tennents of the Lewes att such a season as this ; but I shall take care that the contents of your letter be communicated to them all att their respective dwellings. I beleive ye know, without my information, that my Lady Dowager of Seaforth meddled with the cropt one thousand seven hundred and fifteen, and Colonel Alexander M'Kenzie¹ with cropts one thousand seven hundred and sixteen, seventeen,

¹ Of Applecross. "He joined the Earl of Mar in 1715, and was lieutenant-colonel in Seaforth's 1st Regiment, for which he was attainted of high treason, and the estates forfeited to the crown." His son, Roderick, "in 1724, re-purchased the estate of

eighteen, and nineteen, either by himself or his doers. None has meddled with cropt one thousand and twenty.

"For the ordinary method of payments of the Lewis rents, please know that the rental consists of four branches (whatever mistake Glenkindy may have been in), viz., money, meal, batter, and mutton. The three last branches were punctually received in their seasons. As for the money branch, ther was very little of it paid in cash. But in the monthes of October and November, coves were raised and slaughtered, and the beefe sent to such mercats as the manadgers thought fit. Then in January, February, &c., aquavity was received for a considerable pairt of the money rent. In short, there was hardly anything the ground produced that was not received in its season, and after all, a Whitsunday clearance, even for one cropt, was never yet gotten in the Lewes.

"I know no effects now in season (or that can be expected before May or June) but meal or some aquavity, and for the meal, being it's a little dangerous to leave it in the hands of the tennents, and that others more responsible may need it, I'll make bold to raise as much of it as the tennents may handsomely spare, and be answerable att a day for it. The aquavity they may delay to your own arrival. The next product is milk coves in the month of May. These for the most pairt may be sold within the island. Thereafter, in June and July, driving coves. How to dispose of them, yee know much better than I.

"As for resistance or disobedience, ther is no danger att all, ther being no spot of ground in Great Britain more effectually disciplined into passive obedience than the poor Lewes Island. But I assure yee shall find one rugged hag that will resist both King and Government, viz., Poverty.

"It's possible that this account from a person in my circumstances may seem disingenuous; but I only intreat that yee intertain no wrong impression that way but suspend your judgements till time and your own experience determine that matter, and accordingly pass your verdicts upon the report of, Gentlemen, your humble servant,

ZACHARY MACAULAY."

"To Mr William Ross of Easter Ferne and Mr Robert Ross Baly of Tane."

Murdo Du Macaulay the Robber.—This Murdo Du was of the Clan Macaulay in Lewis; he was a man of violent temper and dissolute habits, for which he

Applecross from the Court of Enquiry for £3550."—Mackenzie's "Hist. of Mackenzies," pp. 444, 445.

¹ Original Letter in Seaforth Forfeited Estate Papers in Register House, Edinburgh.—Fraser's "Earls of Cromartie," vol. i. pp. xxxix., xl.

was obliged to leave the island, when he associated with a band of highway robbers, with whom he continued for seven years. During this time he met with many hazardous adventures, as may be supposed. It was the custom for the robbers to go in pairs; and the two robbers took day and day about to plunder on the highway, unless the number of the travellers or the prospect of a large booty required that both should fight.

On a day Murdo and his companion were looking out from the brow of a hill, from which they had a clear view of the high road, when they saw a young man coming along with a wallet on his back. Murdo said to his companion: "This is your day for plunder; go and see what that young fellow has got in his wallet." "No, not I," said the other robber, "he is not likely to have anything worth having in his wallet; besides he may be a widow's son;¹ at any rate I will not molest him this day." But Murdo, although it was not his day for plunder, ran down the hill and said to the young man: "Stop; what have you got in your wallet?" "Nothing of yours," was the answer. "But I must see what you have got there." "Not while I have a sword to protect myself and my goods," said the young man. They drew their swords, and fought, but the fence of the young man was so superior that he quickly drove the sword out of Murdo's hand and brought him to the ground. Murdo begged for life; the young man drew the back of his sword along Murdo's neck, and said, "Now, villain, I might have your life, but I despise taking it, though I do not think many would let you go." By this time Murdo's companion had joined them, when they all sat amicably down to take refreshment; the young man told them he was the son of a widow, and that his wallet contained a small venture of goods which had been advanced to him by a merchant at Perth.

During the time that Murdo was with the robbers they took shelter one night in an unoccupied wintering-house, in which there were deers' horns stuck into the walls to serve for pegs to hang clothes and other things upon. The robbers struck fire, and killed a goat which they had brought with them for their supper, and when it was cooked the meat was divided among them. One of the party was endowed with a supernatural instinct, by which he could divine the future by looking through a shoulder-bone, and he, after a searchful gaze at the shoulder-blade of the recently killed goat, called out that before the goat's flesh was all eaten one of the party present would be dead. On hearing this, one of the robbers, who had not eaten all his allowance, but had hung up what

¹ I suppose there is a superstition that it is "uncanny" to injure a widow's son.

he did not then want upon a horn, rose up and said he would make sure of eating his share; but he tripped against a stone in rising, and falling against a deer's horn, a tye pierced his eye to the brain, and he fell dead.¹

Murdo Macaulay after his defeat by the widow's son came back to Lewis. Zachary Macaulay was then Chamberlain of Lewis, and he allowed him to build a house at *Buaile na Cuaich*, i.e., Cuckoo-Park, or the Cattle-fold of the Cuckoo. A pedlar came to Stornoway, and he engaged Murdo Du, as guide, to go round the country with him, but the pedlar was never seen in life again. Mr Zachary made the villain flit from Cuckoo-Park, when he went to Enaclet, by Loch Roag, and there he married. John Oig Mor Campbell was then tacksman of Scalpay, in Harris, and he had a large herd of cattle on the moor. The herdsman missed one of them, and Mr Campbell, taking twelve strong men with him, went in search of it. They followed the track of the cow as far as Gislay, on the west side of Loch Roag, where Donald Bain was the sole tenant at that time. They searched his house, but nothing was seen to raise suspicion, although the track of the beast could not be traced any further. Murdo Du lived at the next farm, and thither they went. When they entered the house Murdo was away, but his wife was there. Mr Campbell said he was going to search the house for his cow. On hearing this the wife went and placed herself in the doorway of the barn, and declaring she was pregnant, she said they would have to pass over the dead body of herself and unborn child before they should enter the barn during the absence of her husband; and she threatened them with a fearful retaliation if she sustained any injury. Mr Campbell did not force his way, but went on to Kneep, to the house of a respectable man, Murdo Macaulay, otherwise *Mac Mhurchaidh Chaoil*, who made him welcome. Mr Campbell told of his adventure, when Mr Morrison said that Murdo Du was such a desperate villain that, although he had stolen the cow and had it in his barn, yet it was likely he would come there to avenge the affront of attempting to search his premises. Macaulay then looked out for a strong staff and laid it by him where he sat. At length Murdo appeared at the door and saluted the company. Mr Macaulay, to whom he was related, asked him if he was going to sit down. But he had come there to avenge on Mr Campbell the offence which had been put upon his wife, and attempted to spring on Mr Campbell across the fire. Mr Macaulay, however, stopped him with the strong staff, and ordered the villain out of the house or he would have him banished out of

¹ Cf. Brand's "Popular Antiquities," vol. iii. p. 339.

Scotland. Murlo made for the door, but turned and said that before Campbell and his party got back to Harris he would make them pay dear for their trip to Lewis. But in order to avoid Murlo, Mr Campbell and his men were ferried over to Linshader, and in that roundabout way got back to Harris without molestation.

The Rev. Aulay Macaulay, Minister of Harris.—This reverend gentleman was the fourth in descent from the renowned Donald Cam. Mr Aulay's father was Dugald, whose father was Angus, who was killed at the Battle of Aultdearn. Dugald is known in tradition as *Fear Bhreinis*, i.e., the Man (Tacksman) of Brenish, and many songs and stories are told of his feats of strength, such as that he could rear a large six-oared boat on end by himself.

The Rev. Aulay Macaulay was no doubt born at Brenish in 1669, and died in Harris April 1758. He was admitted minister of Tyrie and Coll, 24th July 1702; of Harris, 6th October 1712. He married Margaret, daughter of the Rev. Kenneth Morrison, Stornoway, 5th September 1718, by whom he had fourteen children; she was born 13th May 1702, and died March 1771.¹

Mr Aulay was much esteemed for his piety, benevolence, and conduct, but as he was rigorous in administering church-censure without distinction of rank he was sometimes crossed by the delinquents. One of his parishioners, Donald Macaulay, was accused of paternity by a woman in Harris, but he thought, as he was the friend (that is, relation) of the minister, that he would not be put to the shame of sitting on the stool of repentance; but Mr Aulay would not show any lenity in his case, and Donald had to submit to the disgrace in the face of the whole congregation.

On the Sunday on which Donald had to undergo church-censure there were five women who had likewise to stand at the same time and place as Donald. The minister directed all these women and Donald to stand up, and addressing Donald, he said: "What have you done that has caused you to be subjected to the scandalous situation in which you find yourself this day?" But receiving no reply, he repeated the question in a more determined tone of voice. "Answer me, sir, what is the crime which has been the cause of your standing before

¹ Genealogy of the Macanlays, MS. The Rev. Aulay Macaulay is named in the scandalous Rev. John Lane Buchanan's "Travels in the West Hebrides," p. 76. There is not the least reason for supposing that there ever was any connexion between the Lewis Macanlays and the Macanlays of Ardlincaple. The latter appear to be descended from the family of Lennox, and are now largely represented in Ulster. Cf. Hill's "Macdonnells of Antrim," and "Plantation of Ulster."

this congregation?" "What crime?" exclaimed Donald; "why, the very same crime for which your father and grandfather have had to stand in a like situation;" and turning to his paramour, he said, "Come by me, woman, for if there are any strangers in the church they might go away and tell in Lewis, or in Uist, or in Skye, that I had been guilty with the whole five." This speech so disconcerted the minister that he quickly closed the proceedings.

Mr Aulay had a kirk-officer who was called Tormod Cleireach, or Norman the Clerk, a Maciver from Uig, who was a clever man and a good poet. Whenever Mr Aulay went to visit his friends in Uig Norman went with him. Once when they were going there Mr Aulay walked very fast, and Norman got tired with keeping up with him, and of carrying his bag, so Norman pretended to be ill, when the kind minister relieved him of the bag. Soon Norman was unable to go any farther and laid himself down on the ground. As night was coming on Mr Aulay took him on his back and carried him a mile and a half. They were then within half a mile of the house at Brenish; Norman then confessed he had played a trick on the minister, and hoped it would cause him to walk a little more leisurely in future. Mr Aulay merely told him not to say anything about it.

When they were turning home to Harris again they both got very tired with their long day's travel, and towards evening sat down to rest by a spring on the hill of Luskentire. They were both very hungry, and as Norman had some *graddan*¹ in his bag, which his mother had sent to his wife, he mixed some with a little water and made two large lumps. They began to eat with much eagerness, and when Mr Aulay had made tolerable progress with his *cnap*² (lump) up jumped Norman and addressed some advancing travellers with "Your most humble servant," and "How do you do?" Up sprang Mr Aulay in a hurry, throwing away the remainder of his *cnap*, but there was nobody there. Mr Aulay set off home as fast as he could, and the next day remonstrated with Norman about his tricks; but he excused himself by saying that he was

¹ "Graddan" (Martin's "West. Isles," p. 204). "I have often seen the above speedy mode of making bread of what was only standing corn a very short time before in Harris, and both bread and meal are much sweeter to the taste than what is kiln dried, which is called *min an tircuth*, or *min thircal*, or corn-meal,"—MS. In Shetland it was called "bustin-meal," and the bannock I tasted of it seemed as if it had been made of sawdust.

² It is still a custom to give a *cnap* to a poor and hungry visitor; sufficient water is mixed with oatmeal to form a lump; *coillid tout*.

afraid the minister was wasting time, and he wanted him to proceed on his journey.

There was a meeting of Presbytery at the house of Macleod of Bernera, Harris, which was attended by the Rev. Anlay Macaulay and his faithful kirk-officer, Norman Clerich. The ministers' servants had a room to themselves, and got beef and broth for their dinner. There was then the custom of *Lettrimaid*,¹ that is, the beef and broth were both placed on the table together in the same large dish or bowl. It happened that Norman was one day late in coming to dinner and his greedy messmates had eaten all the meat, but they had not begun on the broth for it was scalding hot. Norman came in, and finding that his share of the beef had been eaten he lifted the large bowl of broth and poured it over them. The screams of the scalded lads brought everybody to the spot, but Norman went off and hid himself under some hay in a barn. The next day Norman left his retreat, and defended himself before the assembled clergymen with so much spirit that he was excused. Mr Anlay was afraid he would still go on with his tricks, for, being born a bard, he was allowed to do almost anything he liked.

Norman Clerich was retained as kirk-officer till Mr Anlay died, and the minister on his death-bed desired that his much beloved friend and servant should, when he died, be buried beside him ; and the two rest together immediately within what was the door of the church, and on the right hand side as you enter. Mackay, the late kirk-officer strictly enjoined his son to preserve the memory of the spot where the old minister was buried, that he might be able to point it out with certainty to those who might wish to know it.

The history of the leading family of Macaulay, from this time, is easily accessible in the volume of Sir Charles Trevelyan, and in many other sources. We have traced them here from lawlessness and bloodshed to the peaceful ministrations of Christianity ;—and a little further on they are holding high positions in our eastern empire or in England. And so it has been with nearly every Highland clan : forced by an economical necessity to leave the lands of their ancestors, they have distinguished themselves in arts, but more particularly in arms, until their names are familiar to all the world. It is not long ago that a clan was a community of which its chief had all the power of a king ; the *Dauine-uaisle*, or

¹ I cannot find this word elsewhere.

gentlemen, were the aristocracy ; and the *Tuathanaich*, or tenants, were a class too indolent to work without compulsion, and too ignorant to know that they were oppressed. Each was necessary to the other, for there was no right but might, no law but force. All that is changed now. Let anyone look over the valuation roll of the Highland counties and they will see how few of the families retain their ancestral properties, and the class of gentry who held their lands under the chiefs, is altogether gone. Even the tenants and crofters are on the move, and when education is diffused among them they will no longer be content with the life of weariness and poverty they now endure. Various causes have brought about this unfortunate condition in the Highlands and Isles, but although they cannot be passed by without regret, no room is left for their discussion in this already lengthy article on the "Traditions of the Macaulays."

VIII.

NOTICE OF AN ANCIENT CELTIC RELIQUARY EXHIBITED TO THE SOCIETY BY SIR ARCHIBALD GRANT, BART., OF MONYMUSK.

By JOSEPH ANDERSON, ASSISTANT-SECRETARY AND KEEPER OF THE MUSEUM.

The Reliquary now exhibited to the Society by the kindness of Sir Archibald Grant is a small oblong box, the lid of which is in the form of a high-pitched roof with sloping gables. It measures $4\frac{1}{2}$ inches in length, $2\frac{1}{2}$ inches in height, to the opening of the lid, and 2 inches in width across the end. The lid measures $1\frac{3}{4}$ inches in height, and $2\frac{1}{2}$ inches along the ridge of the roof, the projecting ornamental terminations being each half an inch in diameter. The gable-shaped ends of the roof form equilateral triangles of $1\frac{3}{4}$ inches of a side.

The box itself is of wood, hollowed out of a single piece, the lower part rectangular, the upper triangular lengthwise with sloping ends corresponding to the external form of the lid of the casket. It is cased outside with thin plates of bronze, which are enclosed in a framework of the same material, formed like a hollow circular moulding carried round the edges of the box, and squared at the corners. This framework is

attached to the wood by rivets, and covers the edges of the thin plates in which the box is encased. The covering plates of bronze on the back and ends of the box and its lid are plain, but those on the front

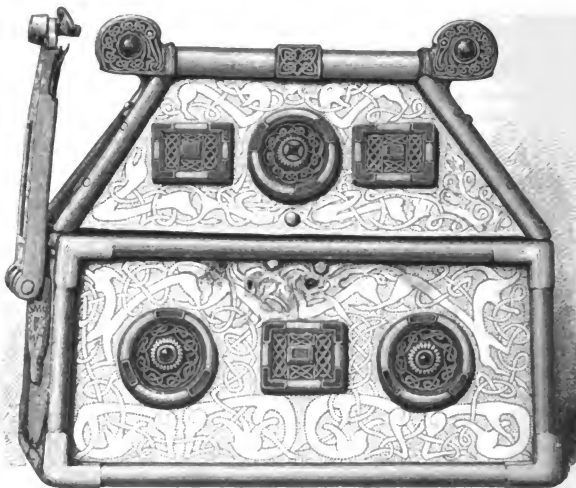


Fig. 1. The Monymusk Reliquary, Front View (actual size).

of the casket are of silver, and highly ornamented. (See fig. 1.) The ornamentation consists of a series of patterns of engraved, zoomorphic, interlaced work; the spaces between the parts of the ornament being stippled or filled with dots so as to form a ground for the patterns. On these silver

plates covering the front of the lower part and lid of the casket, are placed three projecting ornaments enclosing plates of metal chased with interlacing designs. The middle ornament on the lid or upper part of the casket is circular, and those on either side oblong. This arrangement is reversed on the lower part of the casket. The centre ornament of this row and the one to the right have been lost, and their sockets are empty, but they have been supplied in the drawing by the repetition of the corresponding ones which are left. The frame of the circular ornaments consists of a moulding of bronze, rather more than $\frac{1}{4}$ th of an inch in diameter and projection, bearing three segmental settings of red enamel, each of the width of the ring, which encloses a space of about $\frac{5}{8}$ ths of an inch in diameter. Within this space is the circular plate of gilt metal, chased with a pattern of plain interlacing knot-work arranged round a central boss also of gilt metal. The oblong ornaments have settings filled with red enamel at the four corners, which are clubbed, and the enclosed interlacing pattern is arranged round a central setting of the same

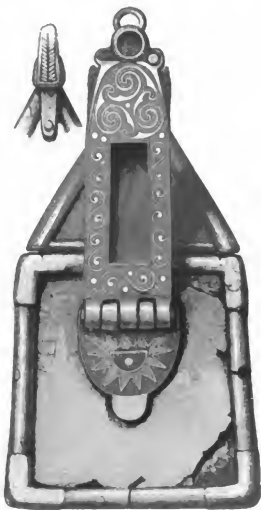


Fig. 2. The Monymusk Reliquary, end view (actual size).

enamel. The central part of the ridge of the roof has also on its face an interlaced pattern, chased on a projecting panel, the top of which is filled with red enamel. The expanded projecting ends of the ridge of the roof are ornamented with a panel of interlaced work of zoomorphic character, arranged round a central setting of lapis lazuli.

Each end of the casket has been furnished with a hinged socket for a strap, probably of leather, by which the casket could be conveniently suspended round the neck when carried on the breast of the bearer, as was the Celtic custom. One of these hinged appendages is gone, but the other remains, and is shown in the end view of the casket given in the woodcut, fig. 2. It is $3\frac{1}{4}$ inches in length, by nearly $\frac{3}{4}$ ths of an inch in width, and highly ornamented with coloured enamels. The lower part below the hinge is furnished with two projecting loops, which pass through holes in the wood to receive an interior fastening. The upper part is hollow to receive the end of the strap, and there are three holes for pins or rivets to fasten the strap in its place. The ornament of the semicircular part below the hinge consists of a central semicircular panel, surrounded by a zigzag border of bright yellow enamel, enclosed in a similar border of red. The upper part has a central panel of oblong rectangular form, surrounded by a border of red enamel, in which are patterns of double reversing, and diverging spirals, in a style which is specially Celtic.

The Reliquary is preserved at Monymusk House, and nothing whatever is known of its previous history. The Priory of Monymusk was an establishment of Culdees in the 12th century, when it first appears in record in the Chartulary of St Andrews, to which it was affiliated. Its foundation by Malcolm Canmore, says Reeves, "rests upon the doubtful authority of a boundary Charter, and the more questionable assertion of Hector Boece." The probability is, that Malcolm Canmore was the restorer of a decayed establishment, and not its first founder. In 1245 the Culdees were converted into Canons of the order of St Augustin, and the monastery subsisted until after the middle of the 16th century, when its lands and endowments fell into possession of a younger branch of

the family of William, Lord Forbes, whose fourth son Robert was the last Prior. William Forbes of Monymusk, whose father Duncan had received a grant of the manor of Monymusk in 1549 from the Prior, subsequently received a grant of the whole houses and buildings of the monastery, which were then ruined and without residents, the members of the convent being all dead except Robert, the commendator by whom the grant was made. In 1712 Sir Francis Grant, Lord Cullen, one of the Senators of the College of Justice, purchased the whole lands of Monymusk from Sir William Forbes.

But there was an older family of Monymusk than either of these. The first notice of them is contained in a curious deed by which, in 1315, the Abbot and Convent of Aberbrothlock, grant to Malcolm de Monimusk, the whole lands of Forglen, with the custody of the Brecebennoch of St Columba, which King William the Lion had given to them on the foundation of their monastery. The Brecebennoch was one of the sacred *vesilla* or battle-ensigns of the Scots, and though it has been usually assumed that it was a consecrated banner, there is reason to believe that, like all the other Celtic *vesilla* that are known, it must have been a reliquary enclosing some relic of the saint. If this reliquary, which is still preserved at Monymusk, be not the missing Brecebennoch which was thus given into the custody of Malcolm de Monimusk in 1315, it can at least be said of it that its form is that of a *vesillum*, and that it is one of a class of Celtic reliquaries, of which the Breac Moedoc is a well-known example, all possessing the same typical form. It is, moreover, the only example of its class now remaining in Scotland, and the beauty and specially Celtic character of its ornamentation invest it with an interest of no ordinary kind, independent of all such questions of historic association.

[This paper, which should have appeared in the last volume, has been delayed on account of the woodcuts, which have been drawn and engraved by Mr John Adam, in a style that leaves nothing to be desired.]

ADDITIONAL NOTES TO—NOTICE OF THE REMAINS OF THE GREAT
AUK (*ALCA IMPENNIS*, LINN.), FOUND IN CAITHNESS; WITH
NOTES OF ITS OCCURRENCE, &c., IN SCOTLAND, AND OF ITS
EARLY HISTORY. BY JOHN ALEXANDER SMITH, M.D., SECRETARY
S.A. Scot.

In my previous paper on the Great Auk (Proceedings, vol. i. pp. 82, 83, New Series, 1879) I quoted from the "Account of Hirta and Rona," in Pinkerton's "General Collection of Voyages and Travels," and also referred to as included in the Sibbald MSS. It is stated to have been that given to Sir Robert Sibbald by Sir George M'Kenzie of Tarbat.

The Rev. Walter Macleod, who is so well able to explain and decipher old MSS., has been good enough to compare the writings of Sir George M'Kenzie with this MSS., so as to enable him to judge whether they were original MSS. or simply copies by Sir Robert Sibbald. M'Kenzie's account was probably sent to Sir Robert before the publication of his "Scotia Illustrata," 1684, as in it he refers to the very great size of the egg of the Gargfowl, which Sir George M'Kenzie specially mentions.

Mr Macleod writes to me as follows:—

"I have again examined the MSS. in the Advocates' Library on the Western Islands.

"MS. 33. 2. 3 is entirely in the handwriting of Sir James Balfour of Denmylne, Lyon King of Arms, and has his name inscribed under date 1642. It is professedly a transcript of the 'Descriptione of the Western Iles of Scotland, by Mr Donald Munro, who travelled through many of them in Anno 1549.' This is the MS. published by Auld in 1774, and in the 'Miscellanea Scotica' already referred to, where, by a printer's error, the date is given as "1594" instead of "1549," as correctly printed by Auld.

"MS. 31. 2. 6 (old number, Jac. V. 4. 24.) is another copy of the Dean's 'Description of the Occidental (i.e., Western) Iles of Scotland. By Mr Donald Munro, who travelled through many of them in Anno 1549.' The handwriting of this copy, which is not an exact transcript of the former, I am not able to identify; but it seems to belong to the period between the Restoration and the Revolution, 1660–1690. The notes on the margin of it are stated in the Catalogue to be in the handwriting of Sir Robert Sibbald, and from com-

parison I think it is so ; the copy may therefore have been made under his supervision. In the same MS. volume there is added a copy of another old MS., entitled 'Description of the Isles of Scotland,' the author of which is not known.

"MS. 33. 3. 20 (old number, A. 4. 14.) with the general title of 'A Description of the Islands belonging to the Crowne of Scotland taken from several manuscripts ; and the relations of those that lived in them or frequented them, &c., &c.,' and a sub-title, 'A Description of the Isles belonging to the Crowne of Scotlande. By Sir Robert Sibbald.' This is not a mere copy of Dean Munro's 'Description,' but it is incorporated apparently with such other matters concerning the Western Isles as Sir Robert was able to collect. This MS. is not in the handwriting of Sir R. Sibbald.

"I have compared these MSS. with some autograph MSS. of Sir George Mackenzie of Roschaugh, and also with some writings of Sir George M'Kenzie of Tarbat, afterwards Earl of Cromartie, but do not consider that either of these persons was the writer of any part of them.

"I may state that the writings of the two Mackenzies referred to are in the collection of MSS. which belonged to the late Mr David Laing, LL.D., and are now in the University Library."

Dean Munro (MS. 31. 2. 6.), in his description of Hirta and its adjoining islets, only refers generally to the sea-fowl—"In thir rock Isles are infinite fair scheippis, with ane fulcon nest and wild foullis biggand." To this copy of Dean Munro's MS. there is also added a copy of another old MS., entitled "The Description of the Isles of Scotland,"¹ It also includes a notice of "Irt." I quote only the references to the sea-fowl :—"It is maist fertile of scheip and foullis ;" describing the natives he says—"but thair daylie exercitation is maist in delving and labouring the ground, taking of foullis and gaddering their eggis, quharon they leif for the maist part of their fude."

¹ Copies of these MSS.—MS. 31. 2. 6, and along with it "The Description of the Isles of Scotland," also the MS. 33. 3. 20—have been recently copied for the Society, under the careful supervision of the Rev. W. MacLeod, and are now preserved in our Library, and "The Description of the Isles of Scotland" has just been printed at full length in the Appendix to Mr W. F. Skene's recently published "Celtic Scotland," vol. iv., Edinburgh, 1880. Mr Skene considers this MS. from internal evidence to have been written between 1577 and 1595.

Sir Robert Sibbald in the last MS. referred to (No. 33. 3. 20) seems to incorporate in a continuous narrative or description the various accounts given of these islands, some of them having been sent to him apparently in answer to queries; as one part of the MS. is entitled:—"Ane answer to the Generall Queries for the Isle of Mull." He includes in this MS. Sir George McKenzie's "Account" (part of which I have printed in my paper, p. 82), but without any special mention of its authorship. He transposes it to suit his own arrangement, quotes the large size of the eggs of the Great Auk "almost as big as those of the ostrich" already referred to, and the very great abundance of the sea-fowl, &c. In this MS. (from which I also quoted in my former paper, p. 83, but the number of which should have been 33. 3. 20), he adds various details of the sea-fowl and their habits, &c., from other authorities, whose names he does not give. Under the title of "Addenda" to this MS. he also gives a much more detailed description of Hirta, principally from Martin's Account of his Voyage—only instead of saying like Martin that the egg of the Garefowl "is twice as big as that of the Solan Goose," Sir Robert now says it is as big as, if not bigger, than that of tame geese. I may perhaps quote the whole passage:—

"The Garefowle, is the largest and stateliest of all the Sea Fowles here. He is bigger than a Solan Goose, of a black colour, red about the eyes, with a large white spot under each eye, a long broad bill; standeth straight on his feet holding his body upright. His wings are short. He heth no flight. He cometh ther the first of May and goeth away the middle of June. He layeth his eggs upon the bare rock. If it be taken away he layeth no more till the next year. He heth the hatching spot upon his breast, *i.e.*, a bare spot without downes. This may be seen in all fowles which hatch. The egg of the Garefowle is as big, if not larger than that of tame geese, and is variously spotted."

This is apparently Martin's account, but slightly altered in its style and arrangement. I have already quoted Martin's account of the Garefowl in my former paper (p. 86).

It is interesting therefore to notice, as I have now attempted to point out, that Sir Robert Sibbald, from his first short account of the Garefowl

in his "*Scotia Illustrata*" (quoted at p. 85 of my former paper), apparently on the authority of Sir George M'Kenzie's statement that "it hath eggs as big almost as those of the ostrich"—which Sibbald however simply describes as "*ovo maximo*," and tells us that the Garefowl was one of the birds on which he desired more accurate information—goes on next to note Martin's description of the bird, and its egg as being "twice as big as that of a Solan Goose." Martin gives this natural-enough comparison, made, doubtless, by some St Kilda man familiar only with the eggs of sea-fowl. Sir Robert then concludes with this, his last notice of it, in the MS. just quoted, where he says:—"The egg of the Garefowle is as big, if not larger, than that of tame geese," a comparison of its size familiar to and easily understood by every one; except perhaps by the natives of St Kilda who had no domestic poultry.

This whole history, then, of the Garefowl and its egg, becoming thus gradually more explicit, is also, it appears to me, an additional proof of the continued presence of this bird on the island of St Kilda—it may have been in gradually falling numbers—both in Martin's time as well as subsequent to it; which, however, some of our writers on ornithology seem strongly inclined to doubt.

I may mention that Dean Munro's "Description" as well as Sir George M'Kenzie's "Account" were published in 1774, in a small volume, now very scarce, with the following title:—

DESCRIPTION OF THE WESTERN ISLES OF SCOTLAND, CALLED HYBRIDES.

By Mr DONALD MUNRO, High Dean of the ISLES, who travelled
through most of them in the year 1549.

With his

GENEALOGIES of the chief CLANS of the ISLES.

Now first published from the MANUSCRIPT.

To which is added—

- I. AN ACCOUNT of HIRTA and RONA, by the Lord Register SIR GEORGE M'KENZIE of Tarbat, never before published.

II. A DESCRIPTION of SAINT KILDA, by Mr ALEXANDER BUCHAN, late Minister there.

III. A VOYAGE to SAINT KILDA in 1697, by M. MARTIN, Gentleman.

EDINBURGH: Printed by WILLIAM AULD. MDCCLXXIV.

The sub-title to Sir George M'Kenzie's account is as follows :—

“An Account of Hirta and Rona, Given to Sir Robert Sibbald, by The Lord Register, Sir George M'Kenzie of Tarbat. As he had it from intelligent Persons dwelling in the same.”

In Gough's “British Topography,” vol. ii. p. 273, 4to, London, 1780, he refers to this and others works on the Western Islands, and says that the copy of the Dean's MS. published by William Auld, Edinburgh, 1774, was corrected from the MS. in the Advocate's Library here, “the best and correctest copy.”

I also referred to the Great Auk noticed by Professor Fleming, D.D., in his “Gleanings of Natural History during a Voyage along the Coast of Scotland in 1821,” published in the “Edinburgh Philosophical Journal,” vol. x., 1824. The Rev. John Fleming, D.D., minister of Flisk, afterwards Professor Fleming of the New College, Edinburgh, in the course of his voyage round Scotland with Mr Stevenson, in the “Regent” yacht, says :—“We left Lochbroom on the morning of the 17th [August] on our return to [the island of] Scalpa [or Glass, on the east coast of Harris, on which there is a lighthouse], which we reached on the morning of the 18th. When on the eve of our departure from the island, we got on board a live example of the Great Auk (*Alca impennis*), which Mr Maclellan, the tacksman of Glass, had captured some time before off St Kilda. It was emaciated, and had the appearance of being sickly; but in the course of a few days it became sprightly, having been plentifully supplied with fresh fish, and permitted occasionally to sport in the water, with a cord fastened to one of its legs to prevent escape. Even in this state of restraint it performed the motions of diving and swimming under water with a rapidity that set all pursuit from a boat at

defiance. A few white feathers were at this time making their appearance on the sides of its neck and throat, which increased considerably during the following week, and left no room to doubt, that, like its congeners, the blackness of the throat feathers of summer is exchanged for white during the winter season. I may add that the black colour of the throat of the Razorbill (*Alca torda*) was at this time undergoing a similar change. In the young of this species the neck was black, but the throat was freckled with white. The bill was black, with the rudiments of a single ridge, and the white line reaching to the eye was obvious" (vol. i. p. 97).

The date of this visit was in the month of August, and the Doctor goes on to say:—"After leaving the Isle of Glass, and taking shelter on the 19th of August in Loch Maddy, we sailed across to Skye on the 20th, and entered Loch Scavig, where we landed," &c.

Professor Fleming afterwards published his "History of British Animals" in 1828, and, curiously enough, in describing this bird he gives the year 1822 (probably a misprint) as the time when he examined it. It was a voyage by the Board of Commissioners of the Northern Lights for the inspection of the different lighthouses, with which Dr Fleming was associated as a guest, and as it is of some little interest to give the exact date when this, the last specimen, of this apparently now extinct bird was captured in Scotland, I subsequently applied to Thomas Stevenson, Esq., F.S.A. Scot., the well-known engineer to the Board, and to the Secretary, and I received the annexed letters, which completely settle the question:—

NORTHERN LIGHTHOUSE BOARD,
84 GEORGE STREET,
EDINBURGH, 16th March 1880.

DEAR SIR,—Referring to your call yesterday, and your inquiry whether it was in the year 1821 or 1822 that Professor Fleming accompanied the Commissioners on their inspection voyage, I beg to say that the Engineers have ascertained from an inspection of the journals of these voyages that the name of the Rev. Dr Fleming of Flisk occurs in the report of the voyage for 1821, but not in that for 1822.

It is, therefore, certain that Professor Fleming accompanied the Commissioners in 1821, and highly improbable that he did so in 1822.—I am, dear Sir, yours faithfully,

JOHN ALEXANDER SMITH, Esq., M.D.,

10 Palmerston Place.

J. M. DUNCAN, Secy.

NORTHERN LIGHTHOUSE BOARD,
84 GEORGE STREET,
EDINBURGH, 16th March 1880.

MY DEAR SIR,—I find Mr Duncan was asking about the Auk. It is given in my Father's Annual Report for 1821.

I will try to lay my hands on his Journal, but it does not seem to be in its place.—Yours very truly,

THOMAS STEVENSON.

Dr SMITH.

&c. &c.

NORTHERN LIGHTHOUSE BOARD,
84 GEORGE STREET,
EDINBURGH, 17th March 1880.

MY DEAR SIR,—I have not as yet been able to get my Father's private Journal for 1821. I find, however, that he went from Leith and went round the coast, arriving at Greenock on the 7th September, so that I believe the Great Auk escaped in or near the Firth of Clyde. I begin to fear the Journal for 1821 may not be recovered.—Yours very truly,

T. STEVENSON.

Dr SMITH.

&c. &c.

In a letter which I received from Professor Alfred Newton of Cambridge University, who has paid much attention to all matters connected with this bird, he refers to my remarks on the statements taken from Fox's "Synopsis of the Newcastle Museum" about the great auk burrowing like a rabbit (p. 94). He agrees with me in thinking the reference must be to the Puffin, and says: "There is not the slightest evidence that the Garefowl ever did such a thing, and a great deal of evidence that it did not."

Professor Newton also kindly corrects a mistake I fell into owing to a typographical error in the list of works cited by Fabricius in his "Fauna Groenlandica," which was the only authority I was then able to refer to on

the subject (p. 101 of my paper). The title of Eggert Olafsen's and Bjarne Povelsen's book is, "Reise igiennem Island," *i.e.*, Travels in (or through-out) Iceland. It was published at Sörøe, a rather important place in Denmark. It was Iceland, therefore, that was referred to as a nesting-place of the Garefowl, and not the island of Sorøe in Norway, which, indeed, is out of the former range of the great auk (*Alca impennis*).

After referring to the history of the great auk, or northern penguin, and its being at the first confounded with the penguins of the southern seas, I stated (p. 100) that they were by naturalists afterwards included in the great Family ALCIDÆ, but that the great auk belonged to the Sub-Family *Alcinæ*, and the true penguins to the Sub-Family *Spheniscinæ*. Changes of classification have gone on, and more modern ornithologists have since placed them still more apart; and I am again indebted to Professor Newton for giving me the latest information on this interesting subject:—

"Bonaparte in 1831 recognized the penguins of the southern seas as forming a distinct family, SPHENISCIDÆ, which is now adopted by nearly all authorities, though some of them term it APTENODYTIDÆ. In 1867 Professor Huxley pointed out that, whereas the ALCIDÆ were manifestly closely allied to the gulls, petrels, and divers, forming a group to which he applied the name of CECOMORPHÆ, the penguins differed in many remarkable characters, and formed a group of equal rank, which he called SPHENISCOMORPHÆ (Proceedings of Zoological Society, 1867, pp. 457, 458). This conclusion of Professor Huxley has been accepted in principle by the majority of leading ornithologists, one of whom, Professor Alphonse Milne-Edwards, in a most exhaustive treatise on the family now in course of publication in the "Annales des Sciences Naturelles" (series 6, vol. ix.),¹ does not hesitate to call the penguins of the southern seas the most singular, if not the most abnormal, group of the class *Aves*. Systematists at present differ considerably as to the number of genera into which the group should be divided,—six or eight having been more or less definitely proposed,—while the number of species is still uncertain.

¹ Art. 9, "Recherches sur la faune des régions australes."

Except one, which is found in the Galapagos Islands, all inhabit the ocean to the southward of the Tropic of the Capricorn, resorting to its shores and islands for the purpose of breeding. The treatise above named, when completed, will doubtless form by far the best account of these birds that has been written, while the portion that has already appeared gives a very complete bibliography of the subject."

In conclusion I may notice that since my paper on the great auk was published two eggs of this bird have been accidentally discovered in a private collection in Edinburgh. They were each labelled "Penguin," and were sold by auction in Mr Dowell's rooms here in a varied collection of eggs, &c., the property of W. C. Murray, Esq., W.S. The collection had been purchased some twenty-five years before, by his late father, John Murray, Esq., S.S.C. (neither of whom apparently were aware that it included the eggs of the great auk), from the late John Lister, Esq., advocate, by whose deceased brother, Andrew, this natural history collection had been made, and in whose possession they were believed to have been for a considerable time. Another brother was a surgeon in the army, and it was supposed that possibly he might have brought these eggs to his naturalist brother. The collection was purchased for a small sum by Mr Small, bird-stuffer, who ascertained that these eggs were really those of the northern penguin or great auk. The eggs were afterwards sold in London at Stevens's Auction Rooms in July 1880, where they were purchased by the Right Honourable Lord Lilford, the one for £100 and the other at 102 guineas, the highest price yet realised for the eggs of the Great Auk, now believed to be extinct.

Mr Robert Gray exhibited these eggs to the Royal Society here (June 1880), and gave some notes of the history of the bird in relation especially to Newfoundland (Proc. Roy. Soc. Edin., vol. x.).

NOTICE OF A FRAGMENT OF A SILVER PENANNULAR BROOCH, ORNAMENTED WITH GOLD FILIGREE WORK AND AMBER SETTINGS, FOUND AT ACHAVROLE, DUNBEATH, CAITHNESS, IN 1860; AND OF TWO SILVER BROOCHES, THE PROPERTY OF ANDREW HEITON, F.S.A. Scot., SAID TO HAVE BEEN FOUND IN THE NEIGHBOURHOOD OF PERTH. BY JOSEPH ANDERSON, ASSISTANT-SECRETARY AND KEEPER OF THE MUSEUM.

The fragment of a brooch which forms the subject of this notice was brought to me by Mr John Marshall, of Messrs William Marshall & Co., jewellers, &c., Princes Street. It had been shown to Mr Marshall as a curious specimen of ancient work, and he kindly offered his services in securing it for the Museum on my representing the desirability of such an acquisition. Having been placed in communication with the owner of the fragment, I learned to my great regret that it had been found so long ago as 1860, and that he was only the casual possessor of one of the fragments into which the brooch had been broken. From him, however, I learned the time and place of the discovery, and on communicating with the actual finder I learned that this fragment is all that is now known to exist. The person by whom it has been preserved has long been removed from the locality and resident in Edinburgh, and the bit of the brooch which he got from the finder at the time when it was found, though at first regarded as a curiosity, had long been forgotten. It was only the other day, in searching for something among some loose papers in the bottom of a trunk that he came upon it accidentally, and showing it as a curious thing to a friend who knew something of silversmiths' work the latter suggested that it should be shown to a jeweller, and thus it found its way to Mr Marshall, and through him to me.

The interesting specimen thus brought to light eighteen years after the date of its original discovery (fig. 1), is the terminal part of one side of a penannular brooch of silver of the form prevalent in the Celtic period

subsequent to the introduction of Christianity. It is $2\frac{3}{4}$ inches in length, and consists of the expanding end of one half of the penannular ring on which the long pin of these brooches was loosely hung by a loop. This loop allowed free motion of the pin round the upper part of the ring, and the expanded ends prevented its coming off the brooch. The ring of the brooch, of which there is only about an inch in length remaining beyond the expansion, is nearly half an inch wide, and its upper surface has been



Fig. 1. Fragment of Penannular Silver Brooch found at Dunbeath, Caithness (actual size).

adorned with plates of thin gold inserted in panels. Only one of these panels remains. It is nearly an inch in length by $\frac{3}{8}$ inch in width, and is beautifully ornamented with the representation of a serpentine or lacertine creature twisted in the shape of a figure of eight. The animal's figure is formed of beadwork of rounded grains of gold soldered on the surface of the plate to represent scales, the outlines of the body being formed of thin twisted gold wire similarly fastened down. The mouth is represented as wide open, displaying two large fangs, and the tongue protrudes in a curve backwards under the throat. The eye is represented by an oval formed round one of the larger grains of gold. The panel is bordered by a raised rim of thicker twisted gold wire.

At the junction of the ring of the brooch with the expanding end there is a large socket enclosing a round setting of amber, and opposite to it, on the outside rim of the ring, is a beast's head in relief.

The triangular-shaped ending expands from half an inch in width at its junction with the ring of the brooch to $1\frac{5}{8}$ inch in width at its termination. It is divided into a central panel of sub-triangular form, having round it a border nearly a quarter of an inch in width, which is

divided into four different panels by three small sockets containing settings of amber, two of which are circular and the third a rectangular oblong. These panels are filled with a very peculiar ornament formed of thin twisted gold wire soldered on the surface of thin gold plates fitted into each panel. In two of the panels on the lower and outer side of the centre panel the ornamentation consists of six S-shaped scrolls, not all turned the same way, but sometimes reversed, so as to produce a pleasing variety in the pattern. The panel on the inner side of the centre is also filled with S-shaped scrolls placed regularly without any reversal. The panel across the end of the expanding triangular termination of the penannular ring of the brooch is filled with C-shaped scrolls placed back to back.

This ornamentation, consisting of S- and C-shaped scrolls of twisted wire, is not uncommon in Anglo-Saxon work. Beautiful examples of its occurrence on Anglo-Saxon fibulæ of the round form, in which it is associated with coloured glass settings, are seen in the splendid fibula from Wingham, near Canterbury, now in the collection of Lord Londesborough.¹ Another example of equally beautiful workmanship is seen in the splendid fibula found at Kingston, also in Kent.² It occurs frequently in Frankish work, as may be seen on the circular fibulæ and other objects from Frankish graves figured by Lindenschmidt³ and others. It is found also in the larger form of bracteates in Denmark and Sweden,⁴ principally as a decoration of the loop or fastening. These bracteates, from their relations to the coinage of Byzantium and for other reasons, are assigned to the period ranging from A.D. 458 to A.D. 600, a period nearly synchronous with that which might be assigned to the earlier Anglo-Saxon and Frankish specimens of this peculiar ornamentation of filigree work.

But on the other hand such scrolls occur in connection with Celtic

¹ *Miscellanea Graphica*, plate xxxiii.

² *Inventorium Sepulchrale*, plate i.

³ Lindenschmidt's "*Alterthümer*," vol. i. heft 1 plate 8, heft 8 plate 2, and heft 12 plate 8.

⁴ *Atlas for Nordisk Oldkindighed*, plates 7, 8, 9, and 10.

work which cannot be assigned to such an early period, as, for instance, on sculptured monuments and on metal work of ecclesiastical use such as the Cross of Cong and the Monymusk Reliquary.¹ It may be safely assumed, however, that their use in metal-work was earlier on the Continent and in England, where it is more common, than in Scotland and Ireland, where it is rare and exceptional. I know no other example of the use of these S and C scrolls in gold filigree work of distinctively Celtic character, unless it be on the acus of Mr Heiton's brooch, to be subsequently described. It is on this account the more to be regretted that the larger portion of the Dunbeath brooch should have perished through simple want of care, and ignorance of its value.

On receiving the necessary information from Mr Christie, the possessor of the fragment, I wrote to the original finder asking him to ascertain whether the remainder of the brooch might possibly be yet in existence, and I here annex his reply, which, though characteristic, is quite decisive :—

“ACHAVROAL, DUNBEATH,
CAITHNESS, *January 28th*, 1879.

“DEAR SIR,—I received your letter concerning the old brooch that was found here this long time back. I have to inform you that I have got none of this old brooch ; or I don't know of any one in this place that has got any of this old stuff you speak about. The time is so long since it was got that everything about it is out of sight and mind here.

“As far as I recollect I will give you all the information I can about the way this old brooch was got. I got it in a drain or sink that I was making out from the house. The pick that I had working the drain came at it and disfigured the whole apparatus out of its form. The brooch looked to me as it was placed on a fine sash of leather or cloth, because I got an imitation of this about it. All the dices in the circle, there was a fine stone in the heart of them all, of every colour. As soon as it was touched they all fell out of their sockets and places. There was

¹ See the Proceedings, vol. xii. page 38, and plate 2 : also *ante*, p. 433, fig. 2.

something similar to a Roman Catholic cross in the middle of this old brooch, and a great deal of other articles attached to it. The whole of it was watered with gold, or some stuff or other. The whole of it was made up as this corner you have got, only there was a cross coming through the centre of it, and all the dices a fine stone of every colour in every one of them.

"This is all the information I can give about this old brooch.—I am,
yours truly, "WILLIAM SUTHERLAND."

The brooch (fig. 2) exhibited by Andrew Heiton, Esq., architect, Perth, a Fellow of the Society, is in the same style of Celtic art and of the same period. It is of silver and penannular, the ends terminating in circular expansions. The ring of the brooch is a flat band of silver half an inch wide, ornamented by two rows of gilt bosses in a sunk panel, between which is a raised band of semi-cylindrical form. The middle part of the ring is occupied by an oval panel surrounded by a raised margin. This panel contained a gold plate ornamented with filigree work, which was unfortunately extracted and melted before the brooch came into Mr Heiton's possession. Similar half-oval panels occur at the terminations of the penannular ring, where they join with the discs which form the expanded circular ends. From one of these half-oval panels the gold plate had also been extracted, but it remains in the other, and presents the figure of a serpent-like creature twisted into a double figure of eight, formed by fine filigree work of beaded or notched wire. The circular discs have a chased border of S-shaped scrollwork, on which rest the heads of three dog-like animals placed with their muzzles projecting towards the centre, and dividing the circular space into three sections. The centre is occupied by a setting of red glass fixed in a thin plate of gold $\frac{3}{4}$ inch in diameter, ornamented with a figure of eight pattern in filigree work of beaded wire. Surrounding this central plate is a border $\frac{3}{8}$ ths of an inch wide enclosed between two raised and concentric margins of silver, and divided into three panels of equal length by the heads of the dog-like animals before mentioned, whose muzzles extend across the

sunk space of the border to the inner raised margin. These panels are filled with thin plates of gold decorated with an interlaced pattern in plain raised lines. The acus, which is $5\frac{1}{2}$ inches in length, is loosely attached



Fig. 2. Penannular Silver Brooch ($5\frac{1}{2}$ inches in length).

to the body of the brooch by a loop which gives it free play. The head of the acus expands into a convex oval, which has been decorated by three settings, the enclosures of which are gone. The central part of

this oval expansion is formed into a sunk panel filled with a thin gold plate ornamented with S-shaped scrolls in filigree work of beaded wire. A pattern of interlaced work extends the whole length of the acus.

This brooch was obtained in Perth by Mr Heiton, and was said to have been found in that neighbourhood along with another silver brooch (fig. 3) of the same form but of coarser workmanship, and in a ruder style of ornamentation. In its general character the first of these brooches resembles those exhibited by Macleod of Cadboll, which have been figured and



Fig. 3. Penannular Silver Brooch (8½ inches in length).

described in the Proceedings. The special feature in which it most resembles the largest of the Cadboll brooches is the use of animals' heads as an ornament on the expanded ends of the penannular ring of the brooch. This is a very rare feature, only occurring, so far as I know, in two other instances, both of which are in Ireland, viz., on the small brooch found near Galway,¹ in which the circular terminations of the penannular ring are divided into three sections in the same manner by animals' heads, and the large brooch found in the Rath at Reerasta, along with the mag-

¹ "Kilkenny Journal," vol. iii. p. 10.

nificent chalice now in the Museum of the Royal Irish Academy.¹ No drawing has yet appeared of this magnificent brooch, which is described as being $5\frac{3}{4}$ inches in breadth with an acus $13\frac{1}{2}$ inches in length. The face of the brooch is divided into forty-six compartments, forty-four of which are filled with interlaced patterns of various forms. The front of the acus has seven panels also filled with interlacings, and both from its great size and from the rich ornament with which it is covered, it must be one of the very finest specimens of this peculiar phase of Celtic art now extant.

¹ "Transactions Royal Irish Academy," vol. xxiv. p. 452.

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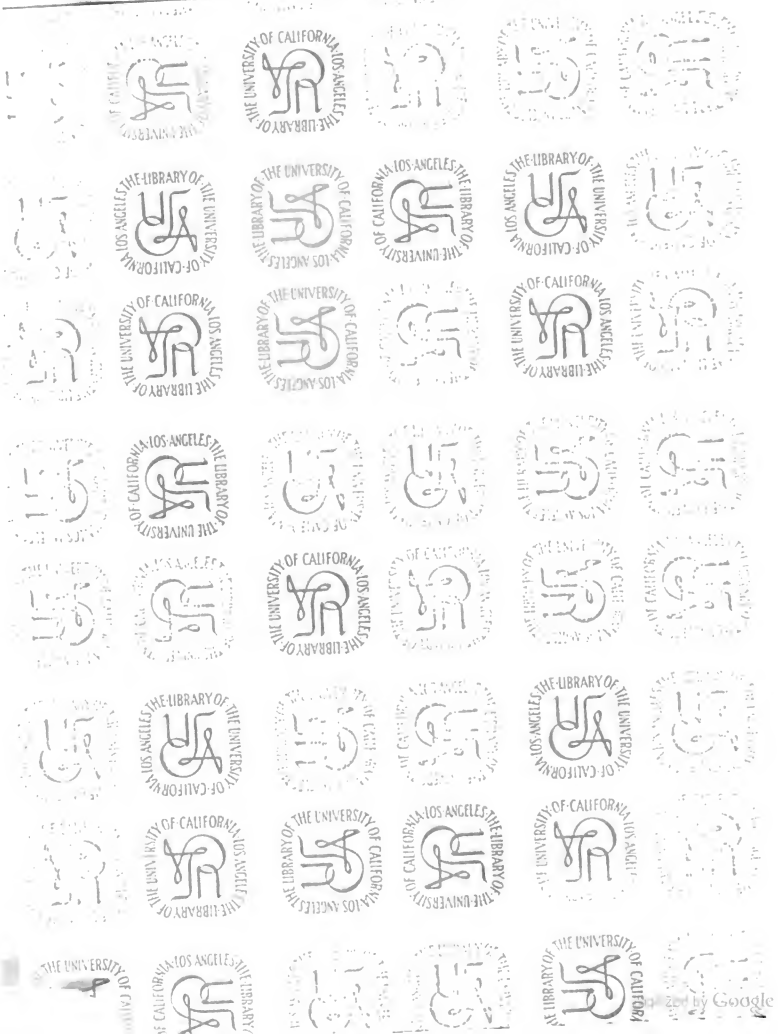
ERRATA.

Page 63, for figs. 19, 20, read figs. 22, 23.

Page 64, for figs. 22, 23, 24, read figs. 19, 20, 21.

Page 107, fourth line from bottom, for Mr Galloway Macdonald, read Mr
Galloway Mackintosh.

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